DOCUMENT RESUME

ED 082 120 CS 000 642

AUTHOR	McCullough, Constance M.
TITLE	Preparation of Textbooks in the Mother Tongue, A Guide for Those Who Write and Those Who Evaluate Textbooks in Any Language.
INSTITUTION	National Inst. of Education, New Delhi (India).
PUB DATE	65
NOTE	130p.
AVAILABLE FROM	International Reading Association, 6 Tyre Avenue, Newark, Del. 19711 (Order No. 906, $2.75 non-member, $2.25 member)
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Elementary Grades; *Guidelines; Hindi; *Reading Materials; Textbook Content; Textbook Evaluation; *Textbook Preparation; *Textbook Research; Textbook Standards
IDENTIFIERS	New Delhi

ABSTRACT

A reading project was initiated by the National Institute of Education in India to (1) produce textbooks and workbooks, field test the books, and train teachers to use them, (2) produce teachers manuals, (3) construct first-grade tests, (4) construct achievement tests, and (5) produce these books in Hindi. The ensuing guide for those who write and evaluate textbooks in any language is divided into 14 sections. The sections include discussions of the following topics--the development of language texts, development of a specific book, research in the preparation of language texts, approaches to teaching reading, controlled vocabulary, proposed statistics, ratio of new to running words, problems in choosing content, planning content, stories for a series, meaning dimensions, thought patterns in expository writing, bases for evaluation, and the text as an instrument of change. A form for the review of children's books and an index is included. (This document previously announced as ED 011 826.) (BK)

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PREPARATION OF TEXTBOOKS IN THE MOTHER TONGUE

A Guide for Those Who Write and Those Who Evaluate Textbooks in Any Language

by

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with the cooperation of

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Second Printing, 1968

Distributed by
International Reading Association
Six Tyre Avenue
Newark, Delaware 19711

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CONTENTS

Note. ii

1. Considerations in the Development of Language Texts 1

2. Development of a Specific Book in a Reader Series 14

3. Research in the Preparation of Language Textbooks:

    A. The Study of Children's Spoken Vocabulary 22

    B. Language Targets for Books in Primary Series 29

    C. The Achievement of School Beginners in Discrimination of Sounds in the Hindi Language 41

4. Approaches to Teaching the Reading of a Language 49

5. Controlled Vocabulary 58

6. Proposed Statistics on Books Primer to Book V 68

7. Effect of 1:40 Ratio of New to Running Words 74

8. Problems in Choosing Contents for a Language Series 75

9. Planning Contents for Books Primer to Book V 78

10. Stories for a Language Series 85

11. The Meaning Dimensions of a Word 94

12. Thought Patterns in Expository Writing 98

13. Bases for Evaluation of a Language Text and Related Materials 115

14. The Textbook As an Instrument of Change 119

Appendix: Form for Review of Children's Books 122

Index 123

NOTE

In the summer of 1963 the National Institute of Education in India initiated a Reading Project in its Department of Curriculum, Methods, and Textbooks (5 West Patel Nagar, New Delhi, India). The following were the stipulated purposes:

1. To produce textbooks and workbooks which demonstrate a modern conception of reading, test these books in the field, and train teachers to use them;
2. To produce teacher's manuals to explain modern teaching procedures in reading;
3. To build tests to be administered to first graders before they begin to learn to read, to see what deficiencies in sub-skills (such as ability to hear differences in sounds or distinguish letter forms) should be rectified;
4. To build tests of achievement in reading to measure the success of the new program; and
5. To produce these books in Hindi as an example of what can be done in any regional language in India.

The committee chosen to carry out these purposes consisted of the following members:

Miss Ahalya Chari, Director of the Project 1963-5 and
    Consultant thereafter
Mr. D. S. Rawat, 1963-4
Mrs. Priithi Mehrotra, 1963-4
Mrs. Sanyukta Ludhra, 1963-
Mr. Ganga Dutt Sharma, 1963-
Mr. Om Prakash Gupta, 1963-
Dr. Chinna Chacko, 1964-, Director from 1965-
Miss Indu Seth, 1964-
Mr. Shashi K. Sharma, 1965

Words of praise for this committee - its remarkable leadership and dedication - would be totally inadequate. The reader is invited to see the reflection of its work in this book and in the materials it has produced in India.

The Governments of India and the United States of America, through a contract with Teachers College, Columbia University, authorized Dr. J. Paul Leonard, Chief of the Teachers College, Columbia University Team in India, to acquire the services of two American consultants in textbook development: Miss Eleanor G. Robison and me.

The first year of the Project revealed a great need for a book such as this one, which could give all concerned a common background. As it was, much time had to be spent in developing a common understanding from which to evolve a point of view.

During the second year I recorded the experiences of the committee and certain other ideas which I found to be helpful in the situation. They provide the committee, regardless of future changes in staff, with a plan and guide for the completion of the work. For other states in India and in the world, it is hoped that this book will make similar tasks easier, or at least more efficiently carried out, than they might otherwise be, reducing the need for consultant service.

Because of the close association which the committee had with the ideas of Dr. David H. Russell, until his untimely death Professor of Education at the University of California in Berkeley, and because of the great debt the world of reading owes to his devoted scholarship, leadership, and insightful thinking, the committee would like to dedicate this book to his memory.

C. McCullough
Professor of Education
San Francisco State College
California, USA

November 1965

CONSIDERATIONS IN THE DEVELOPMENT OF LANGUAGE TEXTS

Time was when a person interested in developing a series of books through which children might learn to read simply said to himself, "What method of instruction do I believe in?" and "What stories did I enjoy as a child?" The answers to these two questions gave him the approach and content for his series. It is still possible to develop a textbook series in this way, but not for persons who know the newer discoveries and practices in the teaching of reading. What, then, might be called an enlightened approach to the development of a reader series?

Probably the reason for much criticism of existing readers is that the task requires almost super-human abilities. One must consider the expert knowledge of many fields: What would a sociologist say about the kinds of material to be used? What would the psychologist say about the methods and the content? What would the linquist say about the varieties of language used and the methods employed? What would the reading specialist say? What would the oculist say about the size of type, the spacing, the illustrations, from the stand point of legibility and reader fatigue? What would the literature specialists say about the content? What would the artist say about the art education being given through the illustrations? What would the evaluation expert say about the way skills are tested and used? What would the economist say about the impressions given about various occupations, agriculture, business, government and industry? What would the village parent say about the stories used; the city parent?

It would be easy enough if it were not for three unfortunate facts: (1) Usually it is impossible to obtain expert opinion in all of these fields. (2) All experts in a given field do not agree; a person may please one expert and outrage all of the others. (3) The desires of one expert in one of these fields are somewhat opposed to those of other experts in the other fields, so that it is not possible to please everyone completely; a compromise must be made. A reader series is a result of many decisions to reconcile differences. Whatever the decisions, it will inevitably be a target for criticism from many sources. If it were not of utmost importance for millions of children to learn to read successfully, no one would be so foolish as to put himself in the position of a veritable duck in a shooting gallery.

Probably it should be said here that even a person who does not consciously consider all of these things, unconsciously makes decisions about them. For example, if the book contains only stories of the past, the compiler has unconsciously turned children's minds to the past. Is the past the only thing worth reading about? Should the present be completely unrepresented? Is the dominant point of view to be, "We had a wonderful past"?

The following are some of the considerations which are involved:

Values

If it is true that one is a product of all that he has experienced, it is important that the ideas received in the reader designed for children in a nation should be consonant with the ideals of that nation. How can those ideals be determined? The various peoples of a country may have various sets of values - principles by which they live. The problem is to identify those values which are best for the achievement of the goals of the nation.

One educator approached about this question said, "We should educate children to know that they have certain duties and certain rights; that they must follow certain hygienic practices and maintain good nutrition; that in their dealings with other people they must be sincere, honest, tolerant and able to adjust to new conditions; and that as scholars and observers of life, they must develop a scientific attitude." Would you agree with him?

Some of the values gathered from contemporary writings are as follows:

Habits of work:

ambition

working directly toward a goal

having a challenging objective

acceptance of hard work as consonant with education

(not education as a way out of exertion)

resourcefulness

Habits of Thought:

thinking for oneself

reasoning things through

experimenting

investigating

hoping for a better life which one actively works to achieve.

Social Attitudes and Behaviours:

sharing (generosity of spirit)

cooperating

feeling responsibility for the welfare of others - seeing one's role beyond self-maintenance

respecting the property of others

respecting parents

respecting laws

respecting work - a job well-done

Other sources stress such values as:

mutual understanding and trust

co-operative effort for effecting change in patterns of living acceptance of responsibility to one's group

dedication to the preservation of freedom

obedience to law and order, authority

appreciation of and respect for elders, teachers

care of personal and public property, natural resources

respect for people of varied religions and cultures

Values have to do not only with behaviours and attitudes within the nation but with the relation of the nation to the rest of the world. Men of world experience who have also held responsible positions in government have written on national integrity, non-violence, arbitration of differences, and the blocking of aggression. Consultation of their works such as those of Gandhi, Nehru, and Radhakrishnan in the case of India, for example, should be productive of a list of values subscribed to by these outstanding leaders.

One may ask how values are expressed in the stories, poems, or other literary forms which may be included in a reader series. Here is an example: There is a story of a man who beat his donkey unmercifully. The donkey could do nothing about this, but he could stand the punishment no longer. So he decided to dress himself up in a tiger skin and frighten his master. This he did. His master was thoroughly frightened. However, his master noticed the donkey's hooves protruding from beneath the pelt. In a rage he whisked off the disguise and gave the donkey the beating of his life.

Now, one might include such a story in his book, saying that it expressed the value that one should not be deceitful, whatever the provocation. Unfortunately, however, the story indirectly condones cruelty to animals. Should children grow up to think it is all right to torture the animals who bear their burdens and give them sustenance? Many favourite old stories in this manner condone cruelty, killing, and theft, as means to desirable ends. It is necessary to analyze the classics carefully if the selection of stories is to support rather than detract from national values.

Vocabulary

When anything new is to be learned, ordinarily the teacher tries to minimize the difficulties which may impede the learning. For example, if a father is teaching his son to ride a bicycle, he will ordinarily choose level ground and a place without other traffic. In learning to read, the same principle holds. Everything should be made easy for the hard job of reading the symbols. For this reason the reader starts with words whose meaning the child knows well, words he has not only heard but has spoken himself, words he knows how to use, words representing things in his own experience.

Later, when the child has learned to read material of this sort and now knows many words, words that he has never himself used and words which he has never heard or seen may be used in sentences which employ the words he knows. If each unknown word is surrounded with words he knows and is used in such a way as to reveal the meaning of the unknown word, the child can learn the new word - both its form and its meaning. In this way the reader series can advance from the child's spoken vocabulary to a broader vocabulary.

Hence there are a few very important questions about vocabulary which the author must settle:

(1) What is the spoken vocabulary of young children?

If the author is writing the books for a village, he must find out the vocabulary of children in that village. If he is writing for a city or state, he must sample the vocabularies of children of this more varied background. If he is writing for several states, he must sample the vocabularies of children from those states and determine the words common to the experience of all those children. Dialects will be a problem. Other languages will be an additional problem. If he finds that a certain word is necessary to his book but not in the common vocabulary of the children for whom the book is designed, he may use it and recommend to the teacher ways of having the children use the word in meaningful speaking activities prior to the reading of that story in the book.

(2) How does this spoken vocabulary develop from one level to another?

If the author is designing material for the first five standards (grades) in the primary school, then he needs to sample the vocabulary of children of school age in those standards. He may do it by tests, by interview, by taking stenographic notes on the informal conversation of children of the ages concerned. Whatever he finds will present a problem. If about forty percent of children in the first standard drop out of school at the end of the school year, it can be supposed that probably the remaining children are the more able. Therefore, the sampling at higher standard levels represents a select population. If a new reader series makes possible the promotion of more children to the second and higher standards, then perhaps children of less linguistic facility will be in school at those higher levels. Perhaps whatever is put into the books at the higher levels would be easier than what the present sampling would suggest. On the other hand, if the reader series is better, perhaps children will be much better readers and much more advanced in vocabulary at the higher levels than even the able children at present are. This is just one of the knotty problems facing the miserable author.

(3) What are the vocabulary demands of the curriculum at successive levels?

The author needs to sample the children's textbooks in social studies, health, science, etc., to see what children are required to read in those fields in the different standards. Certain technical words are not the responsibility of the language text, for it is inefficient and impossible to introduce all such words in the time given to reading instruction. The teacher must deal with science lessons. But the general vocabulary of the textbooks in the content fields must be sampled, so that the author of the reader series can introduce as many of these as possible shortly before need.

It may be that textbooks in the content fields have not always been carefully designed in vocabulary, that actually the general vocabulary used is too difficult and should be simplified in revisions of the textbooks. This, too, the author should consider as he decides what to include in vocabulary in his reader series.

(4) What standard vocabulary is the goal of the reader series?

The author must also decide upon the vocabulary which is his ultimate goal. For example, if the language used is Hindi, should he choose the Hindi of business or the Hindi of poets? Whatever his decision, he must choose from that standard vocabulary the words he will most certainly try to introduce in his reader series, and keep them in a list to which he constantly refers as he chooses the language of the various levels.

(5) How often must a word be repeated to be remembered?

Words are learned by being seen in many contexts, and being seen frequently enough after the first learning so that they are remembered. If the word is a very useful word, it will naturally occur many times without special effort on the author's part. However, a less useful word will require planning for its reappearance in later lessons in a book or series of books.

Perhaps many reader series at present in the country do not practice the repetition of words introduced. While they introduce a great many words (many more than a comparable book with planned repetitions) many of the words are not retained by the child, and many are not seen enough to be remembered as an instantly recognizable total form.

Experiments in representative classrooms with some of the actual stories from the proposed reader series can show whether or not the word load is too great or too small, the repetitions sufficient or not.

(6) What policies are desirable in regard to choice of words?

(a) Suppose children use a word which is not considered acceptable in the adult vocabulary. Should it be used because it is natural? Should it be eliminated because it will further imbed a bad habit? Should its use be avoided? For example, a natural use of English is shown in this exchange: "Are you coming with us?" "No, I ain't." The question is: Should "ain't" be used? Should it be left out ("No")? Or should it be circumvented ("No, I don't want to.")?

(b) Suppose there is a word like "up", in English, which has many meanings and many uses. Should all the common uses be introduced? Together or separately? If separately, in what sequence? A reader series in the United States introduces "up" in its first book. One story uses "up" in the expression "up the street"; another story uses it in "up the stairs"; another in "hold me up to the drinking fountain"; another with the balloon that "goes up"; all different kinds of "up".

(c) What responsibility will the author take for the fullness of meaning of words like home or democracy or camel? In a story he may introduce one kind of home. But will he suggest that the teacher develop the idea of home in a discussion of different kinds of homes which human beings and other animals have? Will the teacher ask what children think of when they think of home (warmth, comfort, kindness, help, a place of their own, etc.)? For democracy will the story or the teacher deal with its various manifestations? For camel will the story or teacher do more than define a camel (what it looks like, what it can do, how it works, what it needs to live, what its habits are, what sounds it makes, how its hair feels, what uses man has made of it)?

(d) Should words for the first book be chosen only for their presence in the spoken vocabulary or also because they are easily written and useful in teaching certain letter sounds and certain principles of word structure? Will some words have to be included because they are common, despite the fact that they are hard to write or are irregular in structure? To what extent should an old story be altered in wording to suit the controlled vocabulary? Are there some words which the flavour of the story demands?

The Language

The characteristics of the language in which the books are to be written is another consideration. What experiences with the language should the child have through the medium of the readers? What distinctions in vocabulary should be sampled? For example, English has many prepositions to suggest relationships, while a language like Hindi has relatively few, depending upon context to designate which of several meanings a given preposition (or postposition) has. On the other hand, Hindi has special words to designate the relationships within the family, whereas English has to resort to descriptive terms to designate which grandfather, which uncle, which cousin of which sex is meant.

The variations in verb form may include separate forms for different sexes, degrees of respect, number (singular or plural), person, and tense. Which of these should be taught first? How many of them are common enough to be included in the primary series?

What forms do the nouns take? Are there different structural types of nouns (prefixed, suffixed, compounded)? What are the meaning relationships among nouns (abstraction, generalization, specific, part, etc.)? What of adjectives and adverbs? Can they be classified by form or meaning? What aspects of life do they reflect? Which of these are most crucial to the primary vocabulary? Which are used extensively enough to deserve use in the first book in the series?

What words operate as conjunctions? What relationships do they establish between two sets of ideas? Which ones are worthy of early introduction because of their extensive use? Which ones might be delayed until later books in the series?

What sentence structures are common in the language? What are the grammatical rules to be observed? What grammatical habits are to be established in the learner? Which of these sentence structures are common enough and simple enough to be included in the first book?

What words common among young children are not used in adult life? Which of these should be used in the early books in the series? If they are used, when should the adult substitution be made? With what formal uses of language should the child become acquainted? For instance, should he learn a more respectful way of addressing adults than he is perhaps accustomed to using in his home?

What sounds and sound sequences are characteristic in the language? Which ones are difficult for children? If a child speaks a different mother tongue, what sounds in the new language will be hard for him to hear and produce? Which common words contain these sound elements? What positions do the speech organs take for their production?

What punctuation marks, or other forms used in the written form of the language, should be introduced? In what order?

What are the shapes of the written symbols in the language? Can they be classified in regard to ease of writing? Can they be classified in regard to frequency of occurrence? Is the language completely phonetic or are there irregularities?

What larger units than the sentence (paragraphs, chapters, etc.) are used in the language? How are they designed? What clues to this design can the author give the reader? For example, in English the words first, second.....last are some of the clues frequently given in the enumeration of items which are either parallel in classification or set in chronological order.

Kinds of Thinking to Be Fostered

The reader must be able to think _with_ the author, and bring his own thoughts to bear on the subject. If the child does not have experience in hearing logical and chronological presentations (telling a story, adding to a discussion) he brings an undisciplined mind to the reading act.

Fact reading, and the answering of questions by repeating what has been read foster accurate reading but militate against thoughtful reading. People in a dynamic society must read thoughtfully, evaluatively. Teachers can encourage such reading habits with questions and tasks which require different types of thinking about what has been read or is about to be read.

Therefore, the author of a reader series must plan the kinds of thinking which he finds are possible in the language with which he is dealing, the literary forms which it has produced. His selection of materials will be partly determined by their stimulation of thought.

Are the literary forms of his language such as these: letters (business or informal), informational, logical exposition; instructions, stories, poems, dramas?

Are these types of thinking possible in the language and in these types of literary form:

- theorizing
- generalizing
- classifying
- seeing relationships
    - whole-part
    - chronology or sequence
    - cause and effect
    - comparison and contrast
    - coordination - subordination
    - relevance
- predicting outcomes
- drawing conclusions
- evaluating?

Attitudes Toward Reading to Be Fostered

A reading programme is a failure if the child who is taught to read never reads. A reading programme is a failure if the child thinks of reading as only word-calling and the imitation of a teacher's expression. A reading programme is surely a partial failure if the child does not learn to value his culture and to appreciate well written material in his language.

Therefore it is important to consider what attitudes toward reading should be fostered:

reading as entertainment

as literature

as information

as provocative of thought and action

as a bridge of time and space

as communion with the best artists and the best

minds in the history of the society and

the world.

Once these attitudes are determined, the author of a reader series must plan ways in which these attitudes are to be fostered. If he leaves this planning until the readers are completed, he may find that the contents and the teaching activities actually militate against the desired attitudes. If he plans ahead, he will see to it that suggestions are made to the teacher to read aloud well-selected literature for children, that materials for the books will be chosen partly for their literary quality and depth of meaning, that supplementary reading material will be published or, if already available, recommended, so that children will use their reading skills and develop the habit of reading for various purposes.

As an example of the practical meaning of this concern, suppose the author wishes children to know that different authors have different points of view and different sets of facts to offer, and that a reader who would defend himself against narrowly-conceived propaganda must read more than one author on a subject and compare the ideas and weigh the validity of each opposing set. If this is the wish of the author, should he not put into his books on occasion two or more compositions on the same subject but of different authorship? Should he not direct the teacher to ask questions about the ways in which the selections differ, why the authors came to different conclusions or why the reader did, and what more needs to be known before a judgment can be made on the rightness or wrongness of their views?

Suppose, again, that the author wishes children to read beyond the surface of a story, to make, as it were, depth plunges to deeper meanings (See Chapter Fourteen of David Russell's Children Learn to Read (revised). Boston: Ginn and Company, 1961) Should he not, then, choose a story that has a deeper meaning? And should he not suggest that the teacher ask questions beyond the surface? If the story is of the crow who had something to eat and the fox who wanted it, should the teacher be satisfied with the answer that the story is about a crow who lost his food because the fox asked him to sing? Why did he listen to the fox and forget his food? Our foes may flatter us to our misfortune. Our foes may win something from us by pre-occupying us with something else. One of the methods of deception is an appeal to vanity. Pride goeth before a fall. What personal instances of this truth can we think of?

Children's Interests

Children learn to read more easily if the material is meaningful to them and if they are interested in the ideas and/or the way the ideas are expressed. Therefore, books which deal with ideas familiar and interesting to children will be more successful teaching tools than books which deal with ideas unfamiliar and uninteresting from the children's point of view.

Children's interests are determined partly by the environment and partly by biological needs as children mature. A six-year-old has different interests from those of an eight-year-old. In some countries, sex, socio-economic status, age, ability, culture, and the educational level of the parents strongly influence the interests of children. It is important to know what is true of the children who will read the books. Studies so far made in the country may have been too limited in sampling and/or too specialized in method to provide the data the author needs. These studies must be revised and perhaps further studies made with the aid of experts in research design.

Organization of the Material

Another decision the author must make is the organization of materials within the book and from book to book in the series. Within the book it is common practice in some countries to have the contents organized in units, perhaps three to eight units per book. These units are on topics such as: At School, Animals We Like, Children of Other Lands, Old Tales. Within each unit are several stories, articles, or poems dealing with the topic. This organization makes it possible to pursue a topic in depth, to provide repetition of words, and to relate the contents of the book to some of the social studies and science learnings of the curriculum for that standard (grade).

The variety of topics within the book has to be determined. Shall the topics be of known interest to the child? If so, will some of the selections deal with science, social studies, humor, classics, children's problems and activities? Will biographical materials be included? If a study of the interests of children shows that the potential readers of the book have marked sex differences in choices of reading material, what proportion of the book should be designed to please the boys; the girls?

If the books are to correlate well with the social studies syllabus, perhaps the stories for first standard will centre around the home, the school and the immediate neighbourhood; for the second around the village or city; the third around the state; the fourth the nation; the fifth the world.

Content

Again, if they are to correlate well with social studies, the major concepts and attitudes to be taught in the various standards (grades) should be supported in the selections in the readers. The same would be true for science and health. What are the major goals in the teaching of these subjects? What are the recommended agricultural practices which could be impressed upon the reader by stories which incidentally but prominently feature them? What are the desirable practices in social life, in public works, in health, in business?

If the child is to learn how to read social studies material by means of the reader series, then some of the selections must be written as social studies material usually appears, as expository material. If, however, it is planned that the teacher of social studies will teach the reading of social studies material in social studies lessons, then the related material in the reading book can be of story type.

If it is important for a child to develop a sense of humour, then humorous stories and poems should be included. If the past has much to offer, then certainly selections from the classics and about the past are in order. Some authors develop a whole unit on humour or on the classics. Others put humorous selections or classic selections into units whose topics they fit. Unless the purpose is to compare types of humour or classical stories, the latter arrangement seems more sensible.

Religion and politics are touchy problems for the author. If the children who will read the books are from one religious group, then material on that religion, on its festivals and practices and literature, is in order. The author must know his clientele well to decide whether a unit on Religions Around the World, or a unit on different political beliefs is advisable.

Another decision on content has to do with the presence or absence of questions and exercises in the text itself. If the questions and exercises are in the book, the children and teacher are sure to see them and less apt to skip over them than they would be if the activities were listed in the teacher's manual.

What else will be in the book? Suggestions for other books to read? Tests? A vocabulary list? A glossary of hard words?

What will be in the teacher's manual? Should it contain the book itself as well as teacher directions? Suggestions for books and magazines which the children can read?

What other materials should be provided or suggested? Letter cards? Word cards? Charts? Readiness tests and achievement tests? A flannel board? A pocket chart? A pupil's workbook or record book? Games to reinforce learnings? Materials for independent work?

Once the author has decided the kinds of material he wishes to put into his books and teaching aids, he must go in search of them. And it should be clear by this time that the author cannot be alone in his task but must have the help of many persons. He must comb the literature for children to see what selections would fit the unit topics and levels of difficulty, and would be in keeping with the values to be promoted. If his books are to profit by literature in other world languages, then he must employ scholars who know these languages and who know children's interests to explore the possibilities. When they find promising selections, they may report them on a form such as the one included in the Appendix. (See page 122.)

The author then chooses the selections he thinks suitable for various units and standards (grades). After this, he has three problems. One is to find writers for children who can do more than merely translate the foreign literature; they must be able to write as artistically as the original author and to retain the flavour of the piece. The second problem is to find writers for children who can invent suitable stories for the units which have not been completed through the use of existing literature. The third problem is to control the vocabulary so that each page of a book adds only one or two new words to the vocabulary and repeats previously introduced words, without violating the spirit and cadence of the prose. Ordinarily poetry is made an exception to this rule, and can be so because the teacher reads the poem to the children prior to their reading it to themselves, whereas prose reading is initially done by the children under the teacher's direction.

It should be noted that, in English, some reading specialists estimate that one new word per hundred running words is easy reading. As children learn to solve words for themselves by sounding them out, studying their structure, and discovering their meaning partly by their use in the sentences in which they are introduced and repeated, more new words per hundred running words can be risked. Also, as there are more words on a page of 12 point type than of 36 point type, two words may be introduced on the former page without undue difficulty for the child.

But the numerical approach to reading difficulty cannot be the only criterion. The author must assume the child's point of view as he views his work. In the sentence, "We had a very_____time at the party," where the new word is unknown (indicated here by the blank), the meaning of the word is crucial to the meaning of the sentence; if, however, the sentence is, "We had a_____good time at the party", the chances are that the word which is new is an intensifier rather than a word of such meaning as "scarcely", and the sentence meaning is relatively secure.

If the author uses such contextual helps for the meanings of the new words, he can afford to introduce more new words per hundred running words. However, he must realize that a new word must be seen in many contexts before it becomes an established "personality" to the reader. Each child has his own limit of new words to be tolerated even in prose well-buttressed with contextual clues.

What skills of reading are to be taught through the materials? Some indexes in modern reader series contain as many as two hundred listings of different skills. What skills does the author think are necessary for the "full reader"? In what order should they be developed? What are the gradations of difficulty in developing a skill? Which skills require which other skills? Many classroom experiments will have to be tried before the answers to these questions can be anything but guesswork.

When the skills have been determined, their sequence (if any) and their gradation, the next question has to do with methods of teaching these skills. How do children learn? But even more important, what do they learn about learning and what do they do as they learn? Do they learn ways of self-instruction? In large classes this is important. Do they learn to think for themselves, to draw their own conclusions on their own observations; or, depending completely on the teacher, do they learn to wait for someone else to do the thinking for them? In the long run, what will the latter type of experience mean for a dynamic society? The author must realize that his judgments about methods and skills and content will not only affect the success of his materials but the future of his country. "As the twig is bent, so the tree is inclined."

One of the hardest questions an author has to answer about content is the level of difficulty of successive books in the series. What makes a book hard? How hard can a book be and still make learning possible? How much harder must the book of the next standard (grade) be? What is fifth standard (grade) difficulty?

An author might try to answer these questions by looking at the books by his competitors; but they are only judging, too. They cannot be his criteria. One answer is to design materials and try them out on children of different standards. The selection of children must be representative of the potential population of users. However, children taught by one method may do badly on the materials using another method because the approach is strange, not because, in a total sequential programme, it would be impossible.

Basic research in English has made it rather easy for the author of an English reader series to determine the difficulty of his materials.* There are actual formulae which he can apply - assessing the lengths of sentences, the number of prepositional phrases, the proportion of rare and common words (lists of which are available), the presence of prefixed or suffixed words (which tend to compress meanings), the frequency of referent words (he, her, who). There are lists of technical words or specialized words which make material difficult. There are survey tests of reading vocabulary and comprehension. The author can use the survey test as a yardstick for his selections. Or he can make a test of his selections to see at which standard (grade) levels most children are able to respond correctly.

The Layout of the Materials

If the materials in the series are to include charts and cards which are to be read by a class at a distance, the size of type and picture must be discernible at the farthest distance. The colour of the paper and of the print partly determine legibility. Size and style of type, spacing and leading are other factors.**

Desirably the book lies flat so that the reader does not have to read a curved page. The paper is off-white and dull in finish, so that glare is avoided. The print is black enough to present a clear contrast to the paper. For children the optimum length of line is about four inches, with sufficient spacing between lines so that the child moving his eyes from the end of one line to the beginning of the next does not miss his mark, and so that the words of the adjacent lines are clearly separated.

The size of type should vary with the age of child. English letter size can be smaller than Hindi letter size, since Hindi has more complicated symbols, with adjuncts both above and below the line. Judging from findings in other countries and in India, the size of type in Hindi for children under seven years should be 36 point; for children 7 to 8 years of age, 24 point; ages 8 to 9 years, 18 point; 9 to 10 years, 16 point; 10 to 12 years, 14 point; over 12 years, 12 point. The style of type should be highly legible, so that the identity of closely similar letters is not confused.

Particularly for young children, the paper should be sufficiently opaque so that the shadow of print on the opposite side of the paper does not show through. Lines of type in the first book should not be justified (that is, the words should not be spread out with variant spacing so that all lines are of equal length regardless of the number of letters in each line.) The jagged margin on the right side of the line helps the child in his shift from one line to another. The margins of the page should be wide enough so that the child does not cover up the print as he holds the book. The illustrations should not interfere with the print.

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*See George R. Klare, Measurement of Readability, Ames, Iowa: The Iowa State University Press, 1964.

**See Miles A. Tinker, Legibility of Print, Ames, Iowa: The Iowa State University Press, 1963.

Evaluation

Finally, the author must provide for the teacher ways of finding out the needs for teaching and the results of teaching. Some of these ways will be by observation. Some of these ways will be through tests which the author will design and place in the book, the workbook, the manual, or in a separate leaflet. Observation and testing in themselves are of little help. The author needs to say what the teacher should do in the case of certain results. Interpretation of possible results and suggestions for remediation are his responsibility.

Again, how is the author to know that his tests are good, that they do what he claims for them? He must try them out. He must have the cooperation of many teachers who are using his materials experimentally in testing and reporting results to him.

Anyone who enjoys a particularly long and complicated process which, at the end, will reap him a great deal of criticism as well as a great many friends, should consider the development of a reader series. It will require the best that he has to give. The real test of the worth of the task is whether the author's efforts will result in instructional materials much better than those previously produced by others. For the whole point of the venture is not to prove one's ability to produce but to prepare children better for the reading world.

DEVELOPMENT OF A SPECIFIC BOOK IN A READER SERIES

Suppose that the type and level of content of each book in the reader series have been determined. Beginning with the Primer (supposing that it is to be the first book), the authors have a brain-storming session - a session in which all ideas are welcomed without severe evaluation, so that creativity is paramount - all ideas recorded, to be considered later. The authors hold in mind the fact that young children cannot normally endure long stories, especially if they must read them. They like to have finished "this-many" stories, to feel a sense of progress as well as enjoyment. The stories, to hold the restless reader, must have plot and action - verbs that go and run and get and find - familiar ingredients of environment but surprise or amusement or pleasure in vicarious accomplishment.

Then there is the narrowing down of the possibilities to ideas which are congenial, yet which give a colorful variety. In the Primer developed by the Reading Project in India, it was decided to have three units, each containing two or three stories. The book was to begin with children's activities around the home: making and enjoying a swing, eating in competition with interested birds, trying out Father's bicycle. The second unit was to deal with the various men who come to the house to sell or entertain - the man with the bear, the man with the mangoes and the man with the monkey. The last unit was to contain traditional stories. Actually, the last story contained words which necessitated a prior story, which the authors invented to suit the need!

Who would the characters be in the earlier stories? The more numerous they are, the more confusing to the child and the more his energy is expended in learning relatively unimportant proper names. The more girl characters there are, the less some boys want to read. The children in stories must have real personalities, real family feeling; they and the parents must play convincing roles. One child in the story must certainly be the age of the pupil who reads the book, so that the pupil can live the part. A younger sister will give him status, and an older brother will give him someone to admire, to help, and to be helped by. What would be some of the things these children might do together, the family might do together? What would be the contributions, the activities, the reactions and characteristic speech of each member of the family?

Before authors waste energy in writing stories that will not be used or that will prove to be too long or too short or too difficult or too different in content to knit well in vocabulary with other stories, it is desirable to make certain firm decisions, hard-headed ones which grieve the idealist while they make it possible to approach the ideal at all. The schools have been paying for a book of such and such length, costing so much money. If the cost is to remain approximately the same, the book cannot be more than so many pages long, on paper of such and such quality, and the page size should be no more than "__by__". Illustrations will cost this much if black and white, this much more if two-colour, three-colour. These are the possible sizes of type and styles of type available from the printing firms which will probably bid for the job.

The authors insist on a type face which clearly distinguishes the letters in the language which cause most confusion; on letter-size which will cause least strain for children of the age served (See research reported in the latest ENCYCLOPAEDIA OF EDUCATIONAL RESEARCH - Macmillan Co.,1960); on non-glare paper of off-white colour to contrast clearly with the shade of black type; colourful illustration. They help determine the kind of colour and binding, depending upon the publisher's data on durability of these. They decide what the length of line should be (usually four inches) and the spacing between lines, and whether in the first book each line will contain only one sentence, with uneven margin on the right side of the page.

Now comes the basic arithmetic. Considering cost of production, the Reading Project Team in India decided that the Primer could be 82 pages long. When any State Department of Education gives such a figure, it should be explained what is excluded. For example, this figure may be in addition to a page for the title of the book, table of contents, and acknowledgements. Chances are that in the Primer there will be no acknowledgements. The book will have been author-written, the traditional story will be in public domain - without need of copyright - and by the time the authors and editors are through, no one knows whose mother or wife should be mentioned but for whom the work could never have been completed!

Suppose there are eight stories in the book, and a decision has been made that there will be two exercise pages of skill-building following each story (2 x 8 = 16 pages of skills), a separate page to introduce each of the three units (3), six pages of tests at the end of the book, and one final page listing the words used in the book, in the order of their appearance. Twenty-six pages of the 82 (if the title page and table of contents are in addition) are thus disposed of. Fifty-six pages are left for stories. If the average number of words to be introduced per page is to be one, then only fifty-six different words can be introduced, to be repeated a number of times in the story and in subsequent stories throughout the book. The length of line and size of type and leading determine the number of words to a line and lines to a page. The presence of illustrations cuts down the number of lines, of course. Now the authors begin to see that the average story in their eight-story book will be about seven pages long, unless the last story in the book, as a proof of prowess and a taste of the rewards of reading, is to be longer than the others. Then, perhaps, six-page stories will be the usual. Perhaps the first story should be short - an easy four or five-page start in the difficult job of identifying symbols and making sense out of them and their relationships.

Now that the authors know about how long their stories can be, they begin to think of the relationships among the stories. Perhaps one story cannot be short - is impossible to reduce. To a certain extent the authors must work backwards: if they want to end the book with this story, what kinds of sentences and what words will have to be in the stories preceding it? If the last story is full of new words and if the next book in the series is not immediately read, the review of the new words will not occur and the effort of their initial learning may have been wasted. It is common practice in modern western readers to make the last story a story of few new words, if any. The last story in the Primer of the Reading Project in India was about a crow and a peacock feather. This necessitated the introduction of a crow early in the book, and the invention of a peacock story to precede the last.

Authors desirably should list the stories they think they will have in their book, and should jot down after each story the words they think are rather indispensable to the telling of the story. This rough check will show them that some stories should be in a different order in the book, are actually too hard or too easy in vocabulary load. Again, thinking of the indispensable sentences ("Do not eat me, Mr. So-and-so") the authors can see that one story is simpler in language pattern and belongs earlier. Sometimes they find that a story will have to be postponed to a later book, because it demands more of the reader than they had thought.

Some of the best early books come from a happy relationship between two authors who spark each others' imagination and creativity. Sometimes a single author has such a relationship with his editor. They have sessions together, trying to write the stories, work separately for a day or night, and then return to show their different treatment of ideas. Or the single author sends his work to his editor or has a conference with him, and gets stimulation and redirection at longer intervals. In any case, successful authorship requires faith in oneself and in the team.

The authors should know young children, and, if possible, should try the stories out on the children for comments. Even help! The author needs an authentic sounding-board - in the case of Primers, children.

The authors may find that they have more story than pages to put it on. For one thing, the children depend on the picture to suggest who is speaking or what is happening, for the vocabulary is too limited to fill in the "whole picture" verbally. Therefore, each page in the first book in the series will contain text dealing with only one incident. A second incident requires another page. One way out of this problem is to present a sequence of pictures showing events of minor but essential importance - thus on a single page, or at the bottom of a page, the authors can take the reader from the events of one page to the events of another, without words.

An interesting technique to encourage thought on the part of the reader is to bring the story to a point of choices (What shall we do?) and portray the possibilities, letting the children stop to discuss the virtues of each before they go on to see what really happened. Often an indispensable idea may be portrayed, and the word for it may be avoided in the text. Thus, with a limit of perhaps fifty words to be introduced in the Primer, the author has saved room for a more essential word in the language.

The adult author, hypnotized by logic, may wish to introduce words close in meaning or sound or appearance or function, in the same story. Practically, this urge should be avoided or used with temperance. If a story requires the naming of six colours, some of them should be introduced in earlier stories, to ease the burden and confusion for the learner.

The writing of the first story in the first book of the series requires an author who knows what children would like and would say; who realizes that two or three words on the first page, repeated as naturally as possible in as many combinations as possible, are probably all the load of new vocabulary a child can take; who knows that, whatever those words are, they must be words useful several times in the story, so that they can occur again and again for mastery; who knows that the letters in these words should be relatively easily written, for the child will be taught to recognize and write some of these letters before any others; who knows that, for beginners, words whose letter sequences are not too much alike, whose lengths are not too similar - in other words, words which can be distinguished grossly - are most appropriate. If, with all this, you have an author who appreciates language and is skillful with it, and who has a keen story sense, you have the find of the century. It should be stated here unequivocally that this is a harder job than the writing of a single book in which the author has no responsibility to the child except to entertain, and no concern for linkage with other books to follow.

Suppose now that the book is written in first draft. The author has done his best, and now analysis must take place. A word count is made, showing in which story on which page a word was introduced, and how many times in that story it was repeated, and in which stories thereafter and how many times it was repeated. This is probably best done on a large chart, perhaps the listing of words on the left, and a row for each word and its repetitions on the right:

<table>
<tr><th rowspan="3">New Word</th><th colspan="5">Story-I</th><th colspan="5">Story-II</th></tr>
<tr><th colspan="5">Pages</th><th colspan="5"></th></tr>
<tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr>
<tr><td>पाठशाला</td><td></td><td>|</td><td>||</td><td>|</td><td>||</td><td>|</td><td></td><td></td><td>|</td><td></td></tr>
<tr><td>चलो</td><td></td><td></td><td></td><td>|</td><td>𝍸</td><td></td><td></td><td>///</td><td></td><td></td></tr>
</table>

This chart clearly shows how many words have been used, and how many times they have occurred; which stories are heavily loaded with words; which words have had no utility after the story in which they were introduced.

The author and editor have choices: they can try to reduce the number of new words in a story by rewording, by using a picture, or by omitting the episode requiring it. Suppose the word is sad. They may let the reader infer the mood instead of telling him. Let the teacher ask, "How do you think so-and-so felt?" "Why do you think so?"

They can take some of the new words in that story and introduce them in earlier stories, so that the load is more equal.

They will make a list of all the words in the book, in groups according to parts of speech:

Nouns / Pronouns / Verbs / Adjectives / Adverbs / Prepositions / Conjunctions / etc. Perhaps they will see that they have in the first book two articles (the, a), one adjective (good), one adverb (here), two prepositions (to, with), one conjunction (and), one interjection (oh), two pronouns (I, me) and about twenty nouns and twenty verbs. They know that children are bored without action, and they look to see whether they have included some really active "action words" - come, go, look, get, run, climb, etc. They check all of these words against the known spoken vocabulary of young children, to see that all of these words are familiar and used in a sense that is known by children (for example, get meaning fetch instead of get meaning understand).

They go through the stories to classify the sentence types; the word order (Here I am versus I am here), the intent (interrogative, imperative, declarative). They find that there are a few questions, more declaratives, and most imperatives. This is natural because, while with adults children seem to ask questions more than anything else, with each other they tend to order each other around the way their parents do to them. This imperative emphasis will die out in the later books.

The author may have got into a rut of word-order within sentences. Reference to lists of sentences in studies of the natural speech of children in informal conversation will show him ways of varying this order within the vocabulary and within the requirements of naturalness.

To their horror the author and editor find that the names of the few characters in the book create a heavy burden in the first story. They decide that the teacher should teach these names by means of several activities (the readiness programme) before the book is started.

When the author and editor are satisfied that their book contains some of the most useful words and sentence types in the language, they now look to see what skills of word analysis can be taught by means of the words. The Reading Project Team in India decided to use both the word-sentence approach and the letter approach to reading. As soon as two words occurred in the book which had their initial letter in common (ball, big), it was time to teach the sound and form and writing of that letter, and to learn to form other words with it in combination with other learned letters. If no other word containing that letter occurred throughout the book, then the skill, except for artificial respiration by the teacher, would be lost; it would be better to teach those skills which would be required again soon. The last three letters of the alphabet in Hindi do not occur in the words children speak. Their learning must be postponed until they will really be useful and thus retained. The Hindi Primer for example, teaches sixteen consonants and six matras (vowels). The remainder, except for the last three, are taught in the First Reader. An attempt has been made to teach the letters most easily written, first; those harder to write, later.

The author and editors may find that certain structural parts of words can be taught. In English, for instance, going and jumping provide the opportunity for the discovery of -ing and the application of this knowledge to other words.

If the words in the book appear to offer too few opportunites for learning the elements of words, some words may be changed or added, for this is not just a book of good stories; it is a teaching instrument.

Before the book production has proceeded much further, specialists must be consulted. Does the sociologist approve? the linguist, the scientist, the psychologist, the grammarian, representatives of the different cultural groups expected to be the consumers? Several revisions may have to be made on the basis of this expert opinion; but ultimately there is a manuscript.

Each page now is carefully planned. Directions for making the illustrations are given on each page, so that the illustrator will know exactly what is wanted. Suppose, for example, that the author does not want to show a house, lest it be unlike the home of the child who reads this first book. He wishes everything to be familiar to the child except the strange print. He may write to the artist, "Indicate doorway but not the type of house." If mood is paramount, he may write,"Show by facial expression and drooping shoulders the disappointment felt". Pages are planned for variety, to maintain interest by physical appearance as well as content. The illustration may be at the top, at the bottom, extend down one side, spread over two pages. The only restriction is that it should not interfere with a clear image of the printed words.

The writer is fortunate if the right artist is already selected and willing. Hunting for one is another matter. Sometimes open competition is solicited, the artists being given directions for three pictures and asked to submit sample illustrations. The artist who has a keen sense of design and colour, who knows how to feature and how to subordinate, who can express action and mood, who can draw accurately, is probably earning more than the publisher can pay. But it cannot be over-emphasized that the success of the books in a reader series, and especially of the early books, depends to a great extent upon the quality and effectiveness of the art work. The illustrations illuminate the meaning of the new words on the page. Additionally, they are a score either for or against a child's aesthetic education.

Before the artist wastes any time drawing pictures of wrong proportion or indicating colours that cannot be produced within the budget of the books, he should have a meeting with the publisher. Once he knows what the conditions are, he can meet them, and a sample of his work can be reproduced on different samples of paper to show the varieties of paper available and the effects possible. A selection of paper is made partly on the artistic results, partly on such conditions as dull but not rough finish, opaqueness which prevents print from showing through from the reverse side.

While the artist goes through this process with the pages of the stories, the author and editor may still be working on the exercise pages of the book. Here they put exercises which will produce what they consider to be essential skills. For example we decided the essential skills for India were inductive learning of letters and of sub-structures of words, and the meaning of words and sentences and larger units of composition. To be frank, we put into the book the learning activities which we most feared teachers would otherwise skip and which we felt most important for children of a democratic nation. We feared that, unless children were taught to use their own heads even in learning letters, they might from the terrific pressure of an established culture never be encouraged to develop the habit of thinking for themselves and having confidence to express and support that thinking. The book, then, was not to be another book in a world of books, but a book designed for a country whose emphasis has been upon established practice and whose need for survival is change, reappraisal, adaptability to change, creative and courageous thinking by the common man as well as by leaders. The attitude toward the children who read these books is an attitude of expectation of great potentiality.

The point to be made here is that the exercises in a book are expressive of educational philosophy, and will either add to the benefits of a people or operate against it. They cannot be an afterthought. They cannot casually be cut out if the book is too long!

Tests may also be in the book, as they were in the books prepared by us. Desirably they are diagnostic; that is, they isolate factors in reading achievement and test them separately, so that the teacher can see in which areas the child is strong, which weak; in which areas the teacher's programme has succeeded or failed with that child. One may be on word recognition, showing that the child can identify the symbols for the words he has been taught to recognize at sight. One may be on word meaning, such as: "Find the name of a bird." "Find the word that tells what a boy can do." "Find the word that means a way of running." One may be on word-analysis. Words that are in children's speaking vocabulary, which contain letters the child has learned to sound, and which have not been taught as sight words, may be used in this test. The child may be asked to find the word in a row of words that means a toy, or to find the word among two or three words which will properly complete a sentence. For comprehension he may be given a test of story recall which capitalizes on the knowledge of more than one story: "In which stories was someone afraid?" Or he may be given a paragraph using the words in the book but a different situation, and may be asked various kinds of question: "Which sentence would make a good name for this story?" "Which word makes you know how So-and-so felt?" "Which of the following things might happen next?" "What happened just before this in the story?"

The last page of the book may contain a listing of all the new words, and the page numbers of their appearance. In addition it may list all the words the child has been asked to solve on the exercise pages to utilise his skill in word analysis. This page can be used as a review page if the print is large enough for the child to read comfortably.

The readiness materials, the teacher's manual, the workbook, and other teaching aids should be developed after the reader itself, for all depend upon the specific characteristics of the book.

The First Reader usually shares with the Primer the work of Class I. Perhaps in subject matter it enters into the school environment, in which the child is now presumably "at home". The size of type is the same but perhaps more sentences and longer sentences are on each page.

The First Reader carries the burden of having to repeat the words used in the Primer. Why? The easy answer is that they have been taught but will be forgotten if they are not used. The better answer is that a word form is probably never fully learned, for it is always viewed with greater care as it is put with other words which resemble it in some way. Similarly, a word meaning is not fully learned until all of its uses and meanings have been experienced by a reader of many different sentences. Traditionally a first reader has been clogged with words with few or no repetitions either in that book or the next. The modern book used in reading instruction is one in which observation is sharpened and meaning is extended and deepened. Fewer words may be actually "covered" but they are better known, in keeping with educational emphasis on quality.

The author must consider the common spoken vocabulary of young children to see which very useful words have not yet been introduced, which ones could be included in the first reader, which others should be saved for second or third. He must think similarly about the types of sentences in the language which can be employed. Certain parts of speech make longer sentences possible; for instance, in English - conjunctive adverbs, interrogative adverbs, relative pronouns, and prepositions. Those most useful to children must be given careful consideration.

The author must list the skills which have been taught in the Primer and plan reasonable expectations for the First Reader. What letter sounds have still to be taught? Which of these are to be found in children's natural speech? What variant endings or verbs, adverbs, adjectives, and nouns remain to be taught? What other structural parts of words (two parts of a compound, prefixes, suffixes) which commonly occur in this limited vocabulary? Which grammatical principles are to become fixed in the child's habitual language?

The author-technician is now ready for the author-creator to plan the units of the next book, to select stories for inclusion and to write others. (This distinction of technician and creator is made because usually the two abilities are not comfortable within the same person, and more than one author is attached to the Project).

Thus it must be clear that, while units may be planned and stories tentatively selected for later books, the tailoring of the stories to fit the series cannot take place until the preceding books have been completed.

RESEARCH IN THE PREPARATION OF LANGUAGE TEXTBOOKS

It has been indicated that a number of types of research are necessary in the development of a modern reader series. The following three articles are reports of three types of investigation undertaken by the Reading Project in India.

A. THE STUDY OF CHILDREN'S SPOKEN VOCABULARY

For the purpose of preparing suitably graded readers the Reading Project Team recognised early that a study of children's spoken vocabulary in the primary classes would be highly useful. The rationale was this:

Hindi material can be read by the child only if he brings a certain level of achievement to the task, in a variety of skills. He must be able to:

understand a statement spoken in Hindi;

hear the sounds that are used in Hindi;

distinguish one from another the sounds used in Hindi, particularly those easily confused;

produce these sounds himself (within the limits of speech impediments);

associate an idea with the spoken Hindi word for it;

distinguish one printed Hindi word from another even before he knows the meaning;

find the same word-form several times in a list or row of words;

find the same word-form several times on a page of words in sentences or paragrapns;

look at words from left to right, systematically.

anticipate the next plausible event in a story told to him, contributing a sentence or more of his own;

know the form of a story well enough to tell one of his own in proper sequence, or finish one started for him.

To accommodate such a child, the material itself must be designed so that initially all difficulty is minimized except that of "deciphering the code", and the deciphering itself should proceed from easier printed symbols to more difficult ones:

The concepts (ideas) must be mainly those with which the child is familiar.

The words attached to them must be mainly those with which the child is familiar.

The sentences, in structure and complexity, should be mainly those which the child has mastered himself in spoken language.

The composition (chiefly story material) must be short and simple enough for the child's understanding and attention span.

The situations must be meaningful enough in his own experience to be understood and to hold his interest.

The language of the Hindi Readers must be based upon studies of Hindi vocabulary, and especially studies of children's language. Such studies as are made for the purpose of preparing books must be limited rather than extensive, and must depend for their validity on careful sampling rather than large numbers.

For the design of the vocabulary survey instruments, there are several models. Particularly valuable are the precedents of the following references:

Dorothea McCarthy, The Language Development of the Preschool Child, Minneapolis: University of Minnesota Press, 1930.
Dorothea McCarthy, "Language Development in Children," in Leonard Carmichael, ed. Manual of Child Psychology, Wiley: New York, 1946.
Mildred Templin, Certain Language Skills in Children, Minneapolis: University of Minnesota Press, 1957.
Ruth Strickland, "The Language of Elementary School Children: Its Relationship to the Language of Reading Textbooks and the Quality of Reading of Selected Children," Bulletin of the School of Education, Indiana University, Vol. XXXVIII, No. 4, July 1962.

The Project Team devised the following instruments:

Test I - Spoken Vocabulary

Test I is designed to explore facets of the child's spoken vocabulary. Six questions relate to the home, four to school, four to the village, three to the city, four to entertainment, eight to special events (festivals, weddings), and two to travel. They are questions requiring the child to enumerate ("What kinds of work do city people do?") or describe ("Tell something about a fair you have been to.") If the child is reluctant to respond to a question concerning something clearly within his experience, (such as a city question to a city child), the examiner is free to ask additional questions which do not "give the answers" or "put words into the child's mouth", but which clarify the request. The examiner is to write down the child's response exactly as the child says it.

Test II - Hearing Vocabulary

It was assumed that the hearing vocabulary, beyond the spoken vocabulary, contains words for objects, actions, conditions, and relationships in the environment. The most probably commonest words, such as Mother, would be avoided in the hearing vocabulary test as they would be evident in Tests I and III. The test had to be short because of the fatigue factor as well as for getting the co-operation of teachers to give it. Therefore representative words, rather than an exhaustive list, would be given.

An analysis of the parts of speech in the entire vocabulary of the readers for the first three years in the Ginn Reader Series (Ginn and Co. Boston, Mass.) was used as an aid in determining classifications of words in Hindi. This was a quick way of lining up the survey with the design of a scientifically graded vocabulary. However, naturally, modifications had to be made because of the different environment and language. The final test was an attempt to represent these classifications:

Nouns: parts of the body
people in the home
objects in the home (self and home)
food
clothing

people on the street, in the village, on the farm
objects in the store, street, village, farm (outside the home, familiar)
animals (land, water, sky)

objects in the sky
people in the sky (outside, farther removed)

people remote in time or condition (ghost)
objects remote
animals remote

abstractions, general terms

Verbs: sound motion feeling thought

Adjectives: condition, state, or existence
emotion
effect or appearance
feeling
size or amount
behaviour
time
position
taste

colour (appearance)

Adverbs: time direction place

intensity or degree motion

condition

Prepositions (Post-positions):

time position direction of motion

The choices of Hindi words representing these classifications were made to avoid the probably commonest words; For example, the nouns for parts of the body were neck, heart, and shoulder. They are less immediately observable by the child than such parts as foot or hand.

Lest the children's responses represent parroted, meaningless remarks rather than understood remarks, the examiner was to avoid asking for definitions ("What is a _______?") and mainly to ask questions of relationships or function. Instead of "What does 'buzz' mean?" or "What is it to buzz?" the question is, "What is it that buzzes?" If the child answers this correctly, even in pantomime, it is assumed that he knows one facet of the meaning of "buzz".

To avoid differences in evaluation of right and wrong answers, the examiner was told to write down the child's response verbatim, indicating even the way it was said, to show deviations in speech. The only exceptions to this are items like, "Point to your shoulder," in which the child's response is either right or wrong, and so recorded.

Test III - Sentence Test (Spoken Vocabulary)

Test III was designed to elicit sentences in connected composition. It should yield a list of most commonly used words - not an extensive one but a suggestive one - and evidence on the sentence forms with which the child is familiar as a speaker. Since the Hindi Readers will start with simple stories, the sentences the child uses in telling his story will suggest types of sentences which can be safely used in the beginning stories in the readers.

A sequence of pictures in the test tells the story of a bird which builds a nest, hatches eggs; the young birds grow and fly away. The topic was chosen for its independence of the socio-economic status of the child and for its commonness of occurrence in India. All children should be able to say something about it.

The examiner first takes the child through a sample of three pictures, having him comment on the items in them, in response to the examiner's questions, and then tell the whole story of the sequence. The examiner does not record results but simply uses the exercise as an introduction to the task to be set. Then the examiner shows the child the sequence of five pictures of the bird story, and asks questions about each one. Then the child is asked to tell the whole story, which the examiner records verbatim.

Pilot Study.

Forty teachers in Agra participated in a trial of the three tests. These teachers were selected for their representation of the first five primary grades and the type of school and school population. Their reactions to the instruments after trying them out with a few children were the basis for a revision of the tests.

Test IV

Later an instrument consisting of 250 items was also developed to assess more elaborately the concepts of children at these levels. The sampling of concepts was from the following categories:

I. Self:

  A). Parts of the Body

  B). Health and Physique

  C). Food

  D). Clothing

  E). Sex

  F). Stages of Growth

II. Home:

  A). Relationships

  B). Parts of the House

  C). Household Things

  D). Instruments and Other Useful Things

  E). Marriages and Ceremonies

  F). Festivals

III. School:

  A). Studies

  B). Play and Games

IV. Environment

  A). People

    Professions and Trades

- B). Animals and Birds
    - 1) Dwellings
    - 2) Noises
- C). Vegetation
    - 1) Plants
    - 2) Flowers
    - 3) Fruits
    - 4) Seeds
- D). Agriculture and Industry
- E). Weather and Season
- F). Communication

V. World

- A). Earth
- B). One's Own Country
- C). Law and Order
- D). Government
- E). War and Peace.

VI. Life

VII. Time

VIII. Space

IX. Emotions

X. Qualities

- A). Colour
- B). Size/Shape
- C). Descriptives, etc.

XI. Values

XII. Religion and God.

Survey of Hindi States.

Twelve locations in six Hindi-speaking states were selected for the survey, using the instruments previously described. Two outstanding primary teachers or headmasters in each location were invited to participate in the study. After a four-day orientation in New Delhi, they were to return to their states and test a sampling of children.

Children were to be selected according to their representation of rural-urban, varied socio-economic status, and fluency in spoken language, from class I to V. In each class three children were to be chosen: one who in the teacher's judgment had little command of the language but a willingness to use it, one who was average in command of language, and one who was outstanding in command of language. These children would be individually tested by the four instruments. The results should show both the depths and heights of command of language to be expected in the grades tested, within the limitations of the instruments used.

The team is now in the process of analysing the data compiled from about 200 children.

An interesting finding reported by teachers administering Test III was that children gave generally meagre responses to the pictures showing the nesting sequence. A conjecture is that they had had insufficient experience in being told stories and shown pictures in sequence in a book as stories were told

B. LANGUAGE TARGETS FOR BOOKS IN PRIMARY SERIES

One of the problems in designing a set of readers in a language is to determine what spoken language the children bring to school, so that the first books in the series can base the new learnings upon established language patterns and words. A second problem is to estimate an upper limit, a target in vocabulary which may be aimed at and if possible achieved by the books at successive levels of the series.

The question, specifically, is: What words should be included in Books 3, 4, and 5 in the Reader Series currently being designed by the Reading Project? What varieties and lengths of sentences, what paragraph patterns and complexity should be included?

We now have data on children's spoken vocabulary which sets, as it were, a lower limit for the vocabulary of the reader series. It can be estimated that Hindi-speaking children, like children of other languages whose usage has been studied, come to school probably able to use the common sentence patterns of their language.

What is not known is what should be expected of them in the use of the written symbols for the language in the third, fourth, and fifth standards (grades) for which books are to be designed. There is no assurance that existing textbooks for the development of the reading of Hindi, progress in difficulty at a suitable pace for the children now in school. Nor is there any assurance that new textbooks which would help reduce wastage in the first and second standard should be as difficult as or less difficult than present textbooks. One cannot say, for example, that if a better reading programme reduces wastage by twenty percent, twenty percent fewer words should be learned by such-and-such a standard level.

Obviously, however, when the new series of books is used, the old series will not be used. What will remain will be the texts currently used in social studies, science and other content fields. They, too, may be supplanted by newer books of undisclosed and unpredictable nature. But children will have to read books in all subjects and the purpose of the reader series will be to support that reading. Some sampling of what the present school work demands of the Hindi reader is better than no sampling at all. And certainly the adult dictionaries are no indication; they contain so many words from a broad spectrum of adult usage that they cannot be considered a gauge of vocabulary achievement to be expected at fifth standard.

The point should immediately be made that a reader series cannot teach the specialized words in another subject. The technical words of social studies and science must be taught when they are useful in the subject concerned. If they were taught in the reader series, they would be forgotten before use in the subject field; and other words more important for general use would have to be eliminated from the reading programme to make room for these technical words. The introduction of technical words belongs to the subject matter teacher at the time they occur. The fact that technical words will occur in any sampling of the literature of social studies and science does not reduce the need for the study or alter its purpose.

It should be recognized, also, that, whatever upper limit is delineated by this study, that upper limit will not be the sole criterion of words to be included in the reader series. Reasonable and experimentally verifiable limits can be determined. Can children absorb more than the 1.0 or 1.5 new words per hundred running words established in the readers in English? Is the phonetic character of Hindi justification for more new words per hundred running words, when the purpose of controlled vocabulary is the establishment of a word as a personality, on immediate sight, not the slow, perpetual sounding-out of words? These questions will be the subjects of later research. Meanwhile the problem remains: What words should be included in Books 3, 4, and 5 in the Hindi Reader Series; what should characterize the sentences and paragraphs?

The Hypothesis: A sampling of currently used Hindi textbooks in social studies, science and language will yield the vocabulary, sentence patterns, and paragraph patterns needed by children in the standards (grades) concerned: 3,4 and 5.

Assumptions: An assumption is that the immediate reading needs of children are a suitable yardstick for the language to be included in a reader series for the primary standards. Admittedly this assumption is based upon shifting ground. Immediate needs are not ultimate needs. (Yet, if studies in English have any relevance, a useful observation is that the most common words in adult English reading vocabulary have been found to be the most common in children's speaking and writing vocabulary.) Social studies, science, and language as they are found in textbooks, are not characteristic of all the types of reading matter to which a child should be accustoming himself. (Yet, until children's newspapers, magazines and general reading books become usual equipment in the schools of India, to use their content for an estimate of present needs is scarcely realistic). Present textbooks, rooted as they are in a tradition of teacher-expectations rather than in the realities of student-consumption, probably overestimate rather than underestimate or accurately reflect the achievement of which children are capable. Also, in many classrooms, textbooks are read aloud by the teacher, then by able individual students, so that their mastery has been more a matter of memorization than of reading skill. Chances are, then, that the difficulty of the textbooks in social studies, science, and language will be greater than that which can be expected of books in a reader series which requires reading skill in the way in which it is administered. The results of this study will probably set upper limits which cannot be attained but toward which the reader series can aspire. An additional assumption of this study is that a sampling of textbooks currently used in a particular state will be suitable.

The Design of the Study

The study is in two parts. One has to do with the presence of words, sentences, and paragraph patterns. The other has to do with pupils' ability to read the samples for the reading purposes which teachers would ordinarily set. Therefore, one aspect of the study will be the sampling of passages from textbooks, and the analysis of those passages. The other aspect of the study will be the use of those samples in the construction of a test of reading to be administered in standards three, four, and five, to determine the extent to which the materials assigned to those standards are suitable to the present reading achievements of children in standards 3, 4 and 5.

Part I of the Study

Three textbooks will be chosen for each of three standards (assuming that one textbook is used in each subject - social studies, science and language in each standard):

	No. of Textbooks in Standards		
Text Books in	III	IV	V
Social Studies	1	1	1
Science	1	1	1
Language	1	1	1

From each textbook it is proposed that 10 samples be taken, i.e. ten full pages of material from each textbook:

	Pages of Samples in Standards			
Textbooks in	III	IV	V	
Social Studies	10	10	10	
Science	10	10	10	
Language	10	10	10	
Totals:	30	30	30	= 90

The ten samples from each textbook are a generous amount, as sampling procedures for assessing reading difficulties go. To keep the number down to ten is an attempt to keep the study manageably small. To have as many as ten from each book is an attempt to have a reliable sample of the language conditions in the textbooks.

The ten samples will be taken a equal intervals throughout the textbook. If a textbook has 300 pages, exclusive of appendix or glossary, then a sample will be taken on the 30th, 60th, 90th, etc. page. If a textbook has 425 pages, then a sample will be taken on the 43rd, 86th, and so forth page.

If one of the pages designated for the sample turns out to be a page of illustration (map, graph, table, or picture) or the beginning of a chapter which presents perhaps only a half-page of text, then the following page will be taken instead. If it turns out to be a list of words or a list of questions at the end of a chapter, not characteristic of the composition of the text as a whole, then the following page will be taken instead. If all the pages of the book contain half-page illustrations, or if most of them do, then, of course, pages containing only a half page of text can be included in the sample.

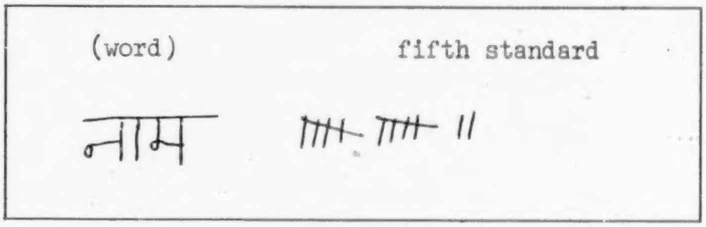
If the illustration (map, graph, table or picture) is essential to the understanding of the verbal material of the sample, it should be duplicated along with the verbal material when a copy is made for a record of the page. All samples, for the purpose of the first and second parts of the study, will be reproduced and maintained in triplicate.

Tabulation of Words

The tabulation of words will be done on cards. Each tabulator will be responsible for one subject area and will have before him a file of blank 3 x 5 cards, and alphabet-tab cards behind which he can put the cards for words beginning with those letters.

He will first work on the samples from the textbook for fifth standard. He will record all words of the verbal text in the sample, whether it be in a title, sub-heading or marginal heading, footnote, or in the running text. He will not count words labelling pictures because, if they are important to the verbal text, they will be repeated in the verbal text; if they are related to the illustration they will be considered as unrelated to the difficulty of the verbal text.

For each word encountered, he will make out a card as follows:

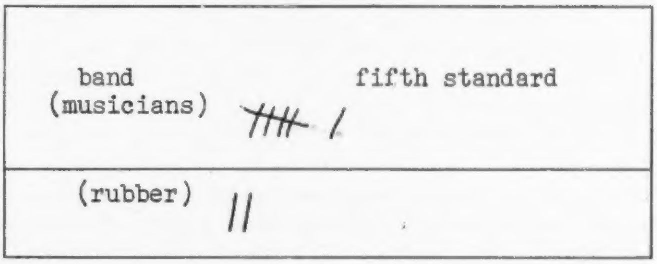

(word) fifth standard

नाम

For each occurrence of the word in the samples, he will make a diagonal stroke on the card. Ultimately, totalling the sets of five strokes, he can quickly determine the number of times the word has occurred.

If it is a very common word in the language, and if he can easily see that it occurs several times on the page, he may find it quicker to skim through the material, adding the number of times the word occurs, than to search for the card in the file when it occurs in the sequence of words on the page. If he will cross out each word on the sample page as he finishes recording its presence on the card he will know what words he has recorded and what ones he has not.

If the word has several meanings (as in English, the word band is commonly used as meaning a group, musicians, a rubber band, or a ribbon, or, as a verb, to group,) the tabulator should divide his card in horizontal lines, in anticipation of different meanings, and should tabulate the occurrences of the word under the different meaning headings, as follows:


band fifth standard
(musicians)

(rubber)

A simple standard dictionary should be used as reference for the meanings.

When the tabulator has completed tabulating words for the samples of the third standard, the total number of occurrences for one meaning of the word should be entered *immediately after* the meaning given (such as *musicians* or *rubber* in the example above). Then the total for all meanings should be entered immediately after the word itself (such as *band* in the example above). If the person who makes this count, counts the meanings separately and then counts all occurrences for the total separately, the count for the total will serve as a check on the count for each separate meaning. (For example, if for *band* in English there would be *144* occurrences, *99* for the meaning *musician*, *45* for *rubber*, and then a recount of all occurrences for the total yielded a figure of *145*, the counter would see that he had made a mistake of 1 point and would recheck his figures.

Definition: A *word* is to be defined in this study as any group of letters forming a meaningful unit and written "in one piece" as a word. If anything (gender, number, etc.) changes the form, then that is an additional word. If for convenience the tabulator wishes to keep different genders and numbers on the same card, he may do so, but he should distinguish the changes clearly and tabulate the occurrences of each on a separate horizontal area of the card.

If, as in an expression such as *ké liyé*, two words compose a single meaning which is lost and misrepresented if the words are counted separately, then these words occurring together should be listed on a card together and counted as a unit.

Tabulators working on different textbooks should keep in constant touch with each other so that they will give the same treatment to such exceptions as *ké liyé*.

The words and frequency of occurrence of each word and each meaning should then be listed *alphabetically* as follows:

Fifth Standard Vocabulary Count in Social Studies Text

Words	Meaning	Frequency
Band	Musician	99
	Rubber	45

In this way a list in each standard and each subject will be made, finally to be compiled in several ways:

(1) All words in a given subject by standard and total

Word	III	IV	V	Total

(2) All words in a given standard by subject area

FIFTH STANDARD

	Social Studies	Science	Language
Word Meaning			

(3) Words common to all subjects in a given standard (one table for third standard, one for fourth, one for fifth)

Word Meaning Frequency

The lists for third, fourth, and fifth would become the basic aims in vocabulary for the readers designed for these standards.

(4) Words common to all subjects in a given standard, in order of frequency of occurrence.

In this list it will be possible to see which words are more necessary to the student than others. It will also be possible to check this list against the vocabulary of the Primer, Book I and Book II of the reader series to see what remains to be introduced at successive levels.

(5) words in the social studies and/or science lists which do not occur in the language lists: their meaning and frequency.

This list will suggest specialized words which are probably the responsibility of subject area teachers in social studies and science.

(6) words in the language lists which do not occur in the social studies or science lists: their meanings and frequency.

This list will suggest the specialized words which are probably the responsibility of the language teacher and not of the social studies or science teacher.

It is estimated that the ninety pages of samples in this study will contain about 25,000 running words. If there is a parallel to English in this Hindi sampling, 20,000 or more of these running words should consist of commonly used words in the language. Thus, while the sampling of specialized words will be quite limited and valid only for the pages in the sample, the sampling of common words should be ample for a broader interpretation.

Tabulation of Sentences

Another part of the analysis of samples is the study of the sentences used: their length and their type.

Definitions:

Sentence: Anything punctuated as a sentence, other than expletives.

Word: One or more letters written in a group as a word. In this case, ke liye is two words. A number (say, 9) is one word.

Simple sentence: An independent clause punctuated as a sentence.

Complex sentence: A group of words punctuated as a sentence and containing an independent clause and a dependent clause (or more).

Compound sentence: A group of words punctuated as a sentence and containing two or more independent clauses.

Sentence Samples in Ten Pages of Fifth Standard Science Textbook

Sample

Sample Pages Total Range

1 2 3 4 5 6 7 8 9 10

Total No. of words
Total No. of sentences
Average length of sentence

No. of sentences
1 word long
2 words long
3 words long, etc.

No. of Simple Sentences
No. of Complex Sentences
No. of Compound Sentences

No. of Paragraphs
1 line long
2 lines long
3 lines long

No. of letters and spaces per line.

The first thing the tabulator should do is to confine his count to full paragraphs. That is to say, if a paragraph begins on the page ahead, he will start counting after that paragraph is completed. If there are only two full paragraphs on the page, he will include only two for that sample.

The table suggested below will show not only the items listed but the range of difference sample by sample. A study of these differences may result in the suggestion that future studies use fewer or more samples for this purpose.

The last two columns in this table should then be combined in a table of sentence samples for all textbooks of the third standard:

Sentence Samples for All Textbooks in Fifth Standard

	Social Studies Samples	Science Samples	Language samples
	Total Range	Total Range	Total Range
Same headings as in previous table			

The same should be done for each standard. These tables will show whether there are great differences in the subject fields for a given standard.

Similar tables should be designed for each subject at all standard levels:

Sentence Samples for All Standards in Social Studies

Social Studies: Totals and Ranges

	III	IV	V	All
	Total Range	Total Range	Total Range	Total Range
Same headings as in previous table.				

These tables will show whether the sentence-reading demands change from standard to standard within a subject field, whether fourth standard actually makes more demands than fifth, for example, or whether a consistent increase in length and complexity and variety of sentence exists.

If there is a well-defined increase in all subjects from standard to standard, then probably the reader series books for those standards should attempt to parallel this increase. If, however, there are marked differences in the demands of the different fields, then a judgment will have to be made as to the pattern the readers will take.

Classification of Paragraphs

In order to determine the kinds of reading students must do if they are to read the paragraphs with adequate understanding, it is necessary to take several steps. One is to make a classification of paragraphs according to types of paragraph organization and purpose, as identified by, say, McCallister of the University of Chicago and by others since that time. (See *Journal of Reading* November, 1964 issue, published by the International Reading Association, Box 695 Newark, Delaware.)

Part II of the Study

Once the types of paragraph structure and purposes have been determined, model questions are to be formulated to be asked in assessing the students' comprehension of the paragraphs. The questions will be designed to cover the kinds of comprehension and interpretation usually developed in grades three, four, and five by modern textbooks. The wording of the questions will be checked against the common words in the vocabulary for the standard concerned, so that the reading difficulty of the questions themselves will not be the thing tested. Strategic words in the paragraphs will also be tested for their meaning in the context, with Edgar Dale's Vocabulary Assessment Design* as a model:

In this paragraph alternate means

in a church   make longer   choice between two

---

* Dale, Edgar. *Children's Knowledge of Word Meaning*. Payne Foundation Study Columbus, Ohio: Ohio State University, 1963.

If the word commonly has more than one meaning, meanings unsuitable to the context will be included in the wrong answers.

These questions and paragraphs will then be given to teachers selected for their expertness in the subject area concerned. The teachers will be asked to check which questions they, as teachers, (a) would surely ask a student who had read the passage,(b) *might* ask, and (c) would *never* ask. They would also be asked to add any question which they would surely ask but which has been omitted. If they disapprove of the wording of any question, they will be asked to alter it. In this way the questions formulated by the investigators will have clearance by an expert group of teachers.

If teachers indicate that they would never ask a certain question, it will be eliminated from the final form *unless* it represents a type of thinking which, whether traditional or not, should be represented in a comprehensive test of thought processes applied to the paragraph. Changes in wording will be studied for their contribution to clarity and simplicity, and for their accurate representation of knowledge in the field. If the changes in wording alter the purpose of the question, they will not be used for that question but may be incorporated in a new question for the different purpose.

Forms of the Test for Tryout

When the test items have been reviewed and improved in accordance with teacher suggestions, there will then be from 90 to perhaps 180 paragraphs or passages accompanied by questions. The questions which the use of these should answer are:

(1) Can children of the standard for which these samples were written actually comprehend the passages and the vocabulary?

(2) What is the relative difficulty of samples of different fields and standards as judged by children's success in answering questions about them?

(3) Are the samples for one field actually harder for the children than samples for another field?

To answer the first question it is necessary to test children of a given standard, using samples from that standard.

To answer the second question it is necessary to test one group of children on samples from all standards. Probably sixth standard children should be chosen and the tests should be a revision of the ones used for Questions 1 and 3.

To answer the third question, the same children in a given standard would be given tests in all three fields. Some would take the language test first, then the science, then the social studies; others would take the science test first, the language second, then the social studies; others would take the social studies, then science, then language; and so on, so that no test would have an advantage of position and practice.

lang. soc. sci.
lang. sci. soc.
soc. lang. sci.
soc. sci. lang.
sci. lang. soc.
sci. soc. lang.

Within any one test, samples from a given field would be given in the order of their appearance in the textbook.

Population Tested

The population tested should be within the school district using the textbooks. It should be large enough to represent a cross-section of children. The tests should be administered to whole classes. If, as in Question (3), children will be tested in several sittings, only the papers of those children taking all the tests should be counted.

Time of Testing

The time of all of these testings should be within the same week. If children are tested toward the end of the school year, they will have been exposed, supposedly, to all the passages for their standard. As a precaution against coaching, teachers asked for opinions of sample questions should not be the same as teachers of the classes tested.

Item Analysis

The item analysis will be based on the scores of those in a given standard who took the literature test first, the social studies test first, the science test first. The language-test-first scores will be arranged in order of magnitude, and the papers having the lowest and the highest 27% scores will be chosen for analysis. The percentage of top and bottom scorers' choices of answers to each question on the language test will be studied for their discriminating value. Wrong answers will be studied for their ability to distract. On the basis of this item analysis, items will be rewritten or discarded.

The same procedure will be used for the science test and the social studies test.

For the answer to Question (1) (Can children of the standard for which these samples were written actually comprehend the passages and the vocabulary?), the test will be rescored, with the omission of faulty items, and a distribution table of scores will be made, with indication of measures of central tendency and dispersion.

Another set of tables will show the percentage of children successfully answering questions on the different samples, so that it can be determined:

whether some samples are harder than others;

whether ones from the latter part of the textbook are harder;

whether some kinds of questions are harder than others;

whether these kinds of questions are harder for scorers of all levels or just of certain levels of total score;

which samples are easy enough for 50% of the children (i.e., of average difficulty)

For the answer to Question (3) (Are the samples for one field actually harder for the children than samples for another field?), tables showing the difficulty of samples for one field will be compared with tables showing the same thing for a second and third field in a given standard. This comparison will reveal whether one field has mostly hard samples as compared with others, if that is the case.

Analysis of "hard samples" and the answers to questions may reveal what the basis for difficulty is: whether vocabulary, sentence structure, paragraph organization or a combination of these, or the conceptual level (needed: criteria for measuring conceptual level).

For the answer to Question (2) (What is the relative difficulty of samples of different fields and standards as judged by children's success in answering questions about them), the samples found to be of average difficulty for students in the standard in which they were administered should now be put into a composite test, the faulty items according to item analysis eliminated. In one form of the test the science items should occur first; in another, the social studies, and so on, so that six forms of the test would be available, all containing the same items but in different sequence by subject:

lit. soc. sci. soc. lit. sci. sci. lit. soc.

lit. sci. soc. soc. sci. lit. sci. soc. lit.

Population Tested

A cross-section of children in the schools which have used the textbooks in the third, fourth, and fifth standards should be chosen to be tested. The children should be starting the sixth standard. The population should be large enough so that whole classes are tested, small enough to keep the study within manageable bounds. The cross-sectioning should be made in consideration of those factors which ordinarily appear to affect academic achievement.

Treatment of the Data

Tests will be scored to yield a total score for the entire test, a total score for each of the subject areas separately, and a total score for the samples of a given field and standard.

Tables will show the distribution of total scores for the entire test and for each subject area, and for each standard and field.

Percentages of children answering the questions of each sample successfully will show the relative difficulty of items and samples.

Interpretation

If the samples from the third standard are easier than those for the fourth, and the fourth easier than the fifth, this will show a number of possibilities:

(a) that pupils of standard 6 are not equal in reading achievement;

(b) that the samples are graded in an appropriate direction though not necessarily sufficiently;

(c) that there is growth in reading achievement from one standard to another, since the samples were average for each standard but different in difficulty level.

The curve of distribution of total scores should be J-shaped; that is to say, there should be many high scores in a concentration and a long "tail" of lower scores in wide distribution. If this is not so, then for some reason there is not a large number of pupils of standard 6 whose reading achievement well outstrips the ceiling of the test (average fifth standard).

Whatever faults or virtues the study will reveal in the existing programme, the data gathered from this two-part study will be helpful in the following ways to the Reading Project:

(a) it will establish goals or upper limits in vocabulary for standards three, four, and five;

(b) it will suggest needed common vocabulary items in all fields;

(c) it will suggest some of the word meanings to be developed at different standard levels (in words of multiple meaning);

(d) it will suggest (but not completely cover) topics in social studies and science with which the material in the readers might correlate;

(e) it will show the stress needed on certain types of sentences;

(f) it will show the kinds of paragraph organization which are important for students to master in the various standards;

(g) it will show the kinds of thinking in which children under present circumstances are skillful or deficient;

(h) it will show which words in the present textbooks as sampled are clearly beyond the grasp of most children as independent readers;

(i) it will suggest vocabulary and comprehension skills needing emphasis in the new reader series;

(j) it will show the gradation of sentence lengths for the books of third, fourth, and fifth standards which should be considered in the formation of sentences in the reader series for those standards.

C. THE ACHIEVEMENT OF SCHOOL BEGINNERS IN DISCRIMINATION OF SOUNDS IN THE HINDI LANGUAGE

Research in countries such as Sweden, England, and the United States of America has shown that children attempting to read a language which is partially or completely phonetic will be at a distinct disadvantage unless they have learned to discriminate among the spoken sounds of that language. It is possible that one of the reasons for the withdrawal of children during or immediately after the first standard in Indian schools is a failure to learn to read. That failure may be due to the children's inability to hear the differences in sound which are crucial in the language being taught at that level. The fact that the average child attending school in India often remains in the first standard for two years increases the curiosity of the educator about the readiness of many children for the tasks of the first grade, one of which is auditory (hearing) discrimination.

In connection with the development of a battery of tests for beginners in school, two tests of discrimination of sounds in the Hindi language were designed and tried out in experimental form on 149 children in sixteen schools of Delhi during a week in May, 1964.

The Population Chosen

The sampling of children to be tested was planned to include children of varied socio-economic background and mother tongue. Children of both sexes were included. The schools and numbers of children involved are as follows:

School		Children in First Standard		
Type	No.	No. Boys	No. Girls	Total
Rural	7	28	37	65
Urban	9	59	25	84

The Instruments

In the summer of 1963 a study had been made of children's spoken vocabulary. School beginners of about six years of age were engaged in conversation by an investigator, who wrote down exactly what the children said. One hundred children from various schools and of different families were thus interviewed.

On the basis of these data a list of commonly used Hindi words was drawn up and validated by consultation with Hindi experts familiar with children's speech in that language. When the auditory discrimination tests were to be designed, the list of words which had occurred in the speech of children interviewed was consulted.

Auditory Discrimination Test 1 was a test of the beginning sounds in words commonly spoken by children whose mother tongue is Hindi. Starting with two sample items to set the pattern of response for the children, it contained 22 additional items. Each item contained pictures of three words, two of which began with the sound the teacher said, and one of which began with a slightly different sound. (For example, the teacher would say, "क" and ask the children to mark the two pictures which begin with that sound. The teacher would then name the three pictures: Kalam, Khargosh and Kabutar. The child who marked

Kalam and Kabutar showed that he clearly distinguished, at least in the words used and in the speech of the teacher, the sound "क". If he marked Khargosh and either of the two words used previously, it showed that he confused the sound "ख" with the sound "क" and needed further speech and hearing training in the two sounds in order to distinguish them from each other.) By careful choice of the wrong answers for each item, representation of all vowels and 27 consonants was given in the test, and each wrong item was considered by the Hindi consultants to be the most probably confusing.

Auditory Discrimination Test 2 was a similar test of ending sounds. Two sample items were followed by 14 items testing the sounds commonly encountered at the ends of Hindi words.

Treatment of the Data

The tests were scored for correct responses, and children's scores for each test separately were ordered by size. The test papers of the 27% of the population of children (Number = 40) whose scores were highest were put into one group, and those whose scores were lowest were put into another group. Then, for each item, it was determined what percentage of the top group made the right response, and what percentage of the bottom group. A difficulty value was assigned on the basis of this evidence by adding the percent of right responses in the upper and lower groups and dividing it by 2.

Table I shows the percentage of right responses for top and bottom groups on Test 1, the test of beginning sounds of words, and the difficulty value assigned to each item.

TABLE I

DIFFICULTY VALUE OF AUDITORY DISCRIMINATION TEST BEGINNING SOUNDS

Item No. (1 and 2 were examples)	Right Responses Upper 27%	Right Responses Lower 27%	Difficulty Value
3.	82.50	5.00	43.75
4.	45.00	7.50	26.25
5.	80.00	20.00	50.00
6.	42.00	0.00	21.00
7.	72.50	30.00	51.25
8.	75.00	2.50	38.75
9.	82.50	5.00	43.75
10.	45.00	7.50	26.25
11.	90.00	5.00	47.75
12.	45.00	0.00	22.50
13.	67.50	5.00	36.25
14.	80.00	10.00	45.00
15.	40.00	5.00	22.50
16.	65.00	7.50	36.25
17.	60.00	15.00	37.50
18.	52.50	2.50	27.50
19.	42.50	0.00	21.25
20.	17.50	0.00	8.25
21.	22.50	5.00	13.75
22.	35.00	2.50	18.75
23.	22.50	0.00	11.25
24.	40.00	5.00	22.50

....

The following facts are notable in a study of these figures:

1. No item was answered with 100% correctness by either top or bottom group.

2. The hardest item was easy enough for 8.25% of the children in the two groups combined.

3. There was great disparity between the performances of top and bottom groups. In the top group 50% or more of the children answered half of the items correctly. In only four items did fewer than 40% of the children answer correctly. On the other hand, with the exception of four items, 10% or fewer of the bottom group answered items correctly. Only one item was answered correctly by as many as 30% of the bottom group.

4. Each item in the test clearly discriminated between top and bottom groups. In no case did the bottom group perform as well as or better than the top group. In all but four items the difference in percentage between the two groups was at least 35%.

Table II shows the difficulty values of the items listed in the order of their demonstrated difficulty, and the two beginning sounds whose confusion made the item, in each case, difficult.

TABLE II

GRADATION OF ITEMS ACCORDING TO THE DIFFICULTY VALUE

(most difficult to least difficult)

Item No.	Difficulty Value
20.	8.25 ए, इ
23.	11.25 ओ, औ
21.	13.75 ऊ, उ
22.	18.75 ए, ऐ
6.	21.00 ज, फ
19.	21.25 अ, आ
12.	22.50 फ, प
15.	22.50 स, श
24.	22.50 इ, ई
4.	26.25 घ, ग
10.	26.25 द, ध
18.	27.50 ड, द
13.	36.25 ब, म
16.	36.25 ढ, भ
17.	37.50 स, श
8.	38.75 ढ, ड
3.	43.75 क, ख
9.	43.75 त, थ
14.	45.00 र, ल
11.	47.75 म, न
5.	50.00 च, छ
7.	51.25 ट, ठ

NOTE: The less the difficulty value, the more difficult are the sounds to discriminate.

Noteworthy in this table are the following observations:

1. The hardest sounds to discriminate were the vowel sounds.
2. Short vowel sounds were hard to distinguish from long vowel sounds.
3. Vowel sounds produced by less or greater opening of the mouth were confused.
4. Least confusing were such letters as m, n and r, l, in which tongue and lip positions are visibly different. (Items 11 and 14.)

Table III shows the percentages of correct response in upper and lower groups, and the difficulty value of each item in the test of ending sounds (Test 2).

TABLE III

DIFFICULTY VALUE OF AUDITORY DISCRIMINATION TEST ENDING SOUNDS

Items (1 and 2 were examples)	Right Responses Upper 27%	Right Responses Lower 27%	Difficulty Value
3.	75.00	20.00	47.50
4.	47.50	2.50	25.00
5.	55.00	2.50	38.75
6.	62.50	20.00	41.25
7.	57.50	7.50	32.50
8.	37.50	5.00	21.25
9.	42.50	5.00	23.25
10.	70.00	20.00	45.00
11.	65.00	5.00	35.00
12.	60.00	15.00	37.50
13.	30.00	5.00	17.50
14.	80.00	10.00	45.00
15.	37.50	10.00	23.25
16.	22.50	5.00	13.25

......

Especially marked are the following observations:

1. No item was answered with 100% correctness by either top or bottom group.

2. The hardest item was easy enough for 22% of the children in the top group and 5% of the children in the bottom group.

3. With the exception of four items out of the fourteen scored in this test, the disparity in performance between top and bottom groups was 35% or greater.

4. Each item clearly discriminated between top and bottom groups.

Table IV gives the difficulty values of each item arranged according to magnitude, and indicating the two sounds tested in each item. Twenty-five consonant sounds were involved in these items.

TABLE IV

GRADATION OF ITEMS ACCORDING TO THE DIFFICULTY VALUE

(Most difficult to least difficult)

Item No.	Difficulty value	
16.	13.25	ब, व
13.	17.50	ब,भ
8.	21.25	द,ड
9.	23.25	त,थ
15.	23.25	स,श
4.	25.00	ग,घ
7.	32.50	ट,ठ
11.	35.00	न,प
12.	37.50	प,ब
5.	38.75	छ,च
6.	41.25	ज,फ
10.	45.00	द,ध
14.	15.00	ल,र
3.	47.50	क,ख

Perhaps the more helpful findings are the result of a comparison of Table II with Table IV. Such comparison leads to the following observations:

1. Some letters seem to be difficult for more children when the letters occur at the beginnings of words rather than at the ends.

2. Some letters seem to be difficult for fewer children when the letters occur at the beginnings of words rather than at the ends.

3. Some letters seem to be difficult for about the same percentage of children whether the letters occur at the first or at the ends of words.

4. Of about the same difficulty, whether at the beginning or end, were the distinctions: द, ड; स,श; ग,घ; ल,र; क,ख.

5. Of greater difficulty at the end were these distinctions:

   त,थ; ट,ठ, प,न; च,छ.

6. Of less difficulty at the end were these distinctions:

   ज, फ; द,ध.

Interpretation

These data were gathered on a relatively small sample of children beginning school. Perhaps more definitive answers would have been obtained had the tests involved more items and several measures of the difficulty of one sound as distinguished from several others. Doubtless children would have had greater success if the items had made less fine distinctions (such as ब,क)

It should be noted also that distinctions of letters in a medial position in a word were not tested.

It is not known how many of the children tested actually hear and speak Hindi in their homes; to how many, in their different mother tongue, the distinctions in the test are unimportant and therefore the ear untrained.

These data are published simply because no such material has been available to classroom teachers prior to this time. Whatever clues teachers may find here to children's difficulties in distinguishing the sounds in Hindi are better than no clues at all. Until the results of a larger sampling (undertaken in Delhi schools in July, 1964, and currently being processed) are available, teachers may benefit by the evidence given here.

Conclusions:

Tentatively, until more extensive work has been done, it can be concluded that, in the sample studied:

1. All children needed some instruction in some of the sound distinctions in Hindi.
2. The extent to which the character of a different mother tongue may be responsible for some of the errors children make is not at present known. It is possible that groups of children of a non-Hindi background may need a certain training which for native Hindi speakers is not necessary.
3. Most children needed training in distinguishing among the vowels, both long and short, and of slightly different production.
4. The results suggest that distinctions made by positions of the lips, teeth, tongue, etc. which are not readily evident when the child views the mouth of the speaker may give the child more trouble. The child cannot see how the difference is made, cannot hear the difference, and cannot produce the difference himself.
5. Children who start learning to read Hindi without being able to hear these distinctions in some of the most commonly used words in the spoken language of children will not understand the use of different letters for what is to them the same sound, and will practice error. They will doubtless fail any test in which the teacher asks them to write or identify a letter whose sound he has spoken or a word he has spoken which can be mistaken for another word by a difference in beginning or ending letter.

Recommendations:

For research workers:

1. These tests should be tried in other states with other populations, to see the differences which may exist for children of different background.
2. Additional tests should be devised to extend the coverage of distinctions in Hindi, to determine problems not found by the present instruments.

3. Additional forms of the present test should be devised to be administered after teachers have tried certain methods to improve children's discriminatory powers, so that the effectiveness of certain methods of improving speech and hearing may be determined.

For teachers:

Before children are taught to read Hindi, deliberate speech practice should be given in the sounds of Hindi. A key word to represent the sound (the sound occurring at the beginning, for practicing those sounds which begin words) should be selected and pronounced with care, the children repeating the sound in unison and separately. Children should be shown how to place the lips, etc. to produce the sound, and should work until they do produce it. Then practice in gross differences should be given. When that sound is well established, the sound with which it is easily confused should be practiced in the same way. Finally, the two sounds should be given in sets of words, and the children should repeat them and say whether the sounds are alike or different in the words given. When they can distinguish the two sounds properly, the teacher can proceed to other sound distinctions in the same way. The use of games, poems, songs, pictures and pantomime will make the task interesting to children and elicit their wholehearted cooperation.

APPROACHES TO TEACHING THE READING OF A LANGUAGE

Each of the following ways of organizing and teaching the reading of a language has been tried in one or more countries throughout the world, with claims of great success. Yet each has had a deficiency when used as the only method of organizing a reading programme. The problem of the modern teacher is to determine what combination of these approaches will be the most efficient and suitable for his language and his students. The teacher can find the answers to his problem only if he considers each plan in relation to the findings of research about the ways children learn and the nature of reading.

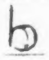
Organization by Letter:

Many children come to school having been taught to recite the names of letters of the alphabet. This learning is sometimes assisted by a little song which uses the letters in sequence:

e-f
c-d g,
h-i q-r w
j-k s x
l-m-n-o t-u y and
p; v, z
a-b

e-f
c-d g,
Now I
know my
a-b
a-b c's.

Single approaches to reading through learning the letters are as follows:

1. Resemblance of object and letter in sound and in shape: A letter is superimposed on a picture of the object whose name starts with that letter. For example, the letter b is imposed upon a picture of a ball: 

This method is sometimes criticized for the lack of clarity of the letter form in this position.

2. Resemblance of sound made by object to sound of letter: A picture of a teakettle is shown with the letter s, for example. In the case of a snake, the shape of the snake can be an s also, fulfilling the conditions of point No. 1 as well as No. 2.

3. Letter-word linkage: a picture of an apple is shown with the letter a and the word apple. The child is taught to say "A is for apple, B is for bunny", etc.

4. Oral spelling: In this the child learns to respond to letters by naming them, perhaps having been taught by point No. 1 or 3. Then when he sees a word, he learns to say: "c-a-t spells cat", or "c-a-t, cat". This method is

criticized because *c-a-t* never says *cat* when it is blended (the blended *sounds* of letters, not the blended *names* of letters, produce *cat*). It is praised because it forces the child to observe the word carefully from left to right. Writing or tracing would force the same observation of sequence, with additional values.

5. *Letter-sounding*: In this system the child is taught to respond to letters by producing their sounds, perhaps using Point No. 2 in learning the sounds. Then he learns to analyze words by letter-sound: "Cuh-a-tuh, cat". This system avoids the error in Point No. 4, but fails in other ways. The sound of a letter often depends upon its position. (For example, in Hindi, the word sounded (aamaroota) is pronounced (aamroot). In English, the letter *c* is sounded like *k* if it is followed by *a* or *o* or *u*, but like *s* if followed by *i*, *y* or *e*.) Also, the vowels in English have several sounds, not just one apiece. Silent letters cause trouble in this system. The *t* in *often* would be sounded by this system but is actually a silent letter in this word. Also, unlike Hindi consonants, which carry a vowel sound, English consonants sounded "alone" create a blending problem. *Cuh-a-tuh* says *cuh-a-tuh*, not *cat*.

6. *Short exposure:* This method is a matter of sheer drill. The teacher shows a card containing a single letter and either pronounces the letter or says its name. The child learns to make this same response on being shown the card containing that letter. He then uses what he has learned in solving words.

7. *Writing letter*: The teacher says, "This is the letter *a*. Write it like this: around and down C| . Say *a* as you write it". The child learns to produce each letter in a proper sequence and direction of strokes and learns to associate its name with its symbol.

8. *Combination of two or more of these systems*: A teacher may decide that, for his language, several of these systems have virtue and may be used in combination. This decision creates the problem of a further decision: in which order should the systems be used, or which should be used simultaneously.

Organization by consonants and vowels:

Whatever system the teacher uses of introducing the sounds of letters, he must introduce these sounds in some order. The following are typical choices of order by consonants and vowels:

1. *Consonant-vowel*: The teacher teaches all the consonant letters first, then all vowels, and then combines these into syllables and words. This is a type of logical approach.

2. *Vowel-consonant*: The teacher teaches all the vowel letters and sounds first, then all the consonants, and then combines these into syllables and words. This is also a type of logical approach.

3. *Consonant-vowel sequence*: The teacher teaches a consonant and then a sequence of vowel sounds with it; then another consonant and the same sequence of vowel sounds with it; then another consonant and the same sequence of vowels. Sometimes charts listing these combinations of sounds are memorized, line by line. This is the logical approach common in the traditional teaching of language in India.

4. Consonants and vowels grouped by sound resemblance: This also is a part of the old Indian system. This is the learning of consonants in groups of letters closely resembling each other in sound and in production. For example, aspirated and unaspirated forms of k would be learned as a group, k and g sounds would be learned as a group because both are produced through the speech organs in nearly but not quite the same way. A criticism of this system is that pupils are confused when very similar learnings take place at almost the same time. It is ordinarily better to learn one thing well, then later learn another well, then compare the two and learn the distinction. This latter practice is well established in the teaching of speech, spelling, and reading in countries in which the psychology and physiology of language learning have been scientifically explored.

5. Occurrence in words: In this system it is recognized that ultimately all sounds and letters must be learned, and that the order of their learning should be determined not by logic for logic's sake but by the efficiency of the learning. This system assumes that children learn best when they use what they learn for purposes which are important to them; that is, that inner motivation is potent and useful. Therefore, if the child wants to write a certain word, he learns, then and there, how to write the word and what the letters are. If he wants to read a word, he learns, then and there, the letters which compose it. In these illustrations of the use of this system, creative writing is the motive in the one case, and the reading of a story the child is interested in reading, is the motive in the other. Organization by consonants and vowels may be a final outcome of this random approach, not the starting point. However, if the teacher chooses to teach only initial letters in words first, he will rather naturally deal with consonants first.

6. Combination of systems: Combinations can be made of these systems. For example, Point No. 1, in which all consonants are taught first, can be combined with Point No. 4, in which consonants or vowels resembling each other closely in sound and sound production are taught together. This combination, unless it is used along with a word approach or sentence approach (described later), delays actual reading in two ways: 1) words are formed by a combination of consonants and vowels, and cannot be studied until all consonants have been learned and vowels begin to be studied and combined with consonants; 2) children are confused by learning letters together whose sounds are much alike, so that they are slower to learn a given amount.

Organization by Ease of Writing Forms:

Some systems of learning to read have been designed in accordance with the difficulty or ease of forming the letters in writing:

1. Graduated difficulty: This system starts with the letter simplest to write. In English this might be l, if a straight line is considered simplest, or c or o if the circle is considered simplest, The system proceeds gradually, then, to more difficult letters. An obvious criticism of this system is that the simplest to write may not produce a word for some time. Also, of course, what seems simplest to an adult may not be for a child. The system requires that research be done to see what is actually easiest for a beginner.

2. Grouping of like forms: In this system, all forms involving a horizontal line are taught together, all those involving a vertical, a diagonal, or a circle. This system capitalizes on the child's mastery of one letter to start

the learning of another. A child who can make a c does not have much more to do to produce an o, an a, or a d. (In manuscript letters, not cursive.) However, this system can also cause confusion because the forms are so much alike and are learned at about the same time.

In many parts of the world a traditional approach has been the learning of all the letters and letter sounds, and the writing of all of those letters before any real reading for meaning is begun. This can be a matter of only a few weeks. The child is not much more ready to learn a hard letter after three weeks than he is after one week. While one would not deliberately choose a letter hard to write, as the first one to teach a child, most of the world's scholars agree that the writing difficulty of a letter is not the most important or even a very necessary consideration in planning a reading programme.

Organization by words:

Some systems of teaching reading are based upon whole words rather than primarily upon letters or letter sounds or the writing difficulty of letters. As in the letter approach, the teacher may have the child learn to recognize the object (in this case, a word) merely by looking at the object and repeating what the teacher says, or the teacher may have the child learn to write and say the name of the object. Whatever the method used, the organization of words may be one of the following:

1. Lists of words: In this case the child learns to recognize a list of words:

a. They may be in alphabetical order, as in a dictionary.

b. They may be grouped according to meaning:

clothing	food	toys
coat	mango	doll
shirt	rice	kite

c. They may be grouped by similarity of form:

cat	cat	dogs	coming
come	bat	cows	waiting
cow	sat	pigs	singing

d. They may be grouped by parts of speech:

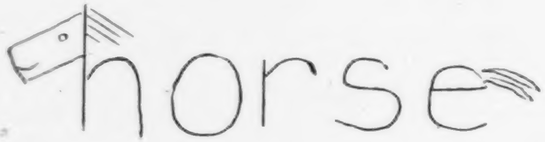
go	tree	good	and	etc.
come	horse	happy	but	

e. They may be grouped by frequency of use in the language. That is, the most commonly used words in the language would be learned first, then the next most common, and so on. Desirably, if this is done, a study should be made of the spoken vocabulary of children, and the most frequently occurring words which are also commonly found in written materials should be taught first.

f. They may be grouped by the regularity with which they follow the rules of the language. If this were done in English, for example, the word run would be taught early, but the word have, which violates the silent e, long vowel, rule, would be delayed. Give would be delayed, for by rule it should be jive.

The misfortune of this approach, if followed rigidly, is that the most common, most useful, words in the language are not always the most regular. This is especially true in English. In Hindi, if this were followed phonetically and grammatically, the useful verb "to be" would be delayed, and the first verbs would be those whose endings, only, change, as in the case of जाना खाना

2. Resemblance to objects: In this system the teacher tries to use the form of the word to assist the child in remembering its meaning. He equips the word horse, for example, with a head, mane, and tail:



The word monkey is remembered for the tail of the monkey and the tail of the y. The word moon contains two letters that remind the child of the shape of the full moon.

This system, of course, has limited application, and is accused of keeping the child so busy remembering how he remembers a word that his reading is hampered. Also, adding manes and tails to words rather obscures the shape which the child must remember and recognize without ornamentation. The printer need not do what the child's imagination will do for him.

3. Chance occurrence: This system engages the child in reading (a book, a chart, a sign, or whatever) and teaches him the words which happen to be there. It is the way a parent might help a child to read, telling him what he asks about as the parent and child look at a magazine or book or sign together. A difficulty with this system is that a word a child asks about may not recur for some time, and meanwhile the child forgets. Furthermore, usually there are so many words the child does not know on a page of randomly chosen material that there is too much to learn at one time to be learned well.

4. Child choice: This is a system of teaching words as the child asks for them. In reading, the child may ask, "What does this say?" In writing, the child may ask, "How do you write__________?" The teacher supplies the word. In some schools a child keeps a card file or notebook, and records and practises the word he has asked for. When this system is used in a group situation, a group of children writing (by dictation to the teacher) a few sentences about something, the teacher may make a group file of words the children learn from what they have written. The particular value of this system is the high motivation of the child who wants to know for his own reasons. The major drawback is that the child may not ask for all the words he should desirably learn or as frequently as he could efficiently learn them.

5. Combinations of these.

Organization by sentences:

The organization of a reading programme by sentence units has a long history in some parts of the world. It drew its strength initially from the belief that children taught in smaller units than the sentence tended to read words or sounds without attention to meaning. In teaching foreign language it had the advantage of presenting common types of sentences to those who would have to hear and speak them. Lately it has had support from some linguists who insist that a word means only what it is used to mean in a context of other words, and that the sentence is the smallest unit of meaning. (Of course, one could argue that the sentence means only what it means in the context of other sentences; that a paragraph, etc.) The following are systems of organization which have had use in programmes:

1. Short-long, or length of sentence: This is a system of starting by teaching the child short sentences, and gradually increasing the length. Beginning language books contain short sentences, typically; and advanced language books contain longer ones. The sense to this is not only that short sentences contain fewer words to learn, but that the meaning of a short sentence is usually not so complex as the meaning of a long sentence, and requires less maturity to comprehend. Too rigid adherence to this system produces monotonous and unnatural composition.

2. Structure: This system is well-known in foreign language teaching. The commonly occurring structures of sentences in the language are studied one at a time, usually from simple to complex or difficult.

The man is happy.

The man is president.

I see the man.

I gave the man the newspaper.

There goes the man.

etc.

3. Word-substitution: This is the structure approach, using the substitution of a word in a structure as a means of learning the structure and of increasing vocabulary:

This is a ball	Is this a ball?
This is a pencil.	Is this a pencil?
This is a table.	Is this a table?
This is a crow.	Is this a crow?

The worst feature of Points No. 2 and 3 is their dullness. The sentences are isolated ideas which usually not only are uninteresting in themselves but bear no meaningful relationship to each other. It is possible to build meanings, sentence by sentence, in a related sequence of sentences, but the dullness born of identical structure is unavoidable. (This is a man. This is a robber. This is a knife. This is a murder. This is a prison.)

4. Spoken vocabulary: In this system the spoken vocabulary of children is recorded, and the sentences and ideas which they commonly speak about are used to introduce them to books. The advantage of this system is that the child

is at home with the words, the sentences, and ideas. The only thing that is new is the symbolism of written form. This system, of course, must gradually be blended with the sentences and ideas which children do not initially have or use.

5. Children's literature: This system uses books which individual authors have written expressly for children. Children learn to read these books sentence by sentence, page by page, story by story. Sometimes a story the children like is written on the blackboard to be read carefully by all. Sometimes a poem is learned in this way. Sometimes the teaching is completely individual, the teacher conferring with children, one by one.

6. Teacher-designed sentences; When children have learned letters or words, sometimes a teacher writes sentences and has the children learn to read them as whole sentences. Because the teacher knows roughly what the children have learned, he can make the sentences easy enough for them to learn. He may hint, "This sentence tells what this table is made of. What is this table made of? Say it in a sentence." The child responds, "This table is made of wood." He looks at the sentence as he says this. Gradually he learns the words.

7. Children's dictation: In this system, children dictate to the teacher sentences they wish him to write in composing a group story or a news bulletin. Then the children repeat the sentences and select the one to read when the teacher asks a leading question,("Find the one that tells how the monkey looked."), until they know them all.

8. Children's writing: Here the children write sentences and stories using the words they have learned to write, and ask the teacher for words they need which they do not know how to write. The teacher shows the child how to write the word, and he adds it to his sentence.

As has been said previously, all of these systems must be appraised for their suitability to the language to be used and to the ways children are known to learn best. Sometimes, however, an educator likes a system so much that, rather than forfeit it because of the nature of the language, he alters the language to suit the system. Ordinarily he is not the first person who thought of doing this, and either he does not know that it is a discarded idea or he believes conditions are now more favourable for its success.

For example, suppose a language is not completely phonetic (a separate sound for every letter), but the educator wishes to use a completely phonetic approach to the learning of the language, anyway. He decides that he will change the spelling of the words in his teaching materials so that they are completely phonetic. Then, after one or two years, he helps the children mentally to convert the phonetically spelled words into the adult spellings of those words. He tests the children and proves that it can be done. Other teachers try it and find it successful. Now he tries it out in many places, and everyone is very enthusiastic.

If this system works as well as another system which does not alter the appearance of the words, why is this so? Recently, for example, a 44-letter alphabet has been experimented with in England and is taught in place of the twenty-six letter alphabet, so that each letter will have only one sound. This system has spread to other English-speaking countries as well as to some where English is taught as a foreign language. Meanwhile, educators ponder these questions: Why should it be as easy to learn 44-letters as it is to learn twenty-six? Why should it be as easy to learn words which do not look like the words on signboards and in other places in the environment, as it is to learn words which are supported by counterparts in the surroundings? Why should it be as easy to learn words "misspelled" for the first one or two years of learning to read, and then learn to recognize the right spellings, as it is to learn them "right" in the first place? If the words are easily relearned, is it that the forms are so similar; and if they are, did this not create a difficulty in initial learning? Supposedly this system was used at the turn of the century and was not continued.* What was unfavourable then which is now favourable?

How much is the success of the approach due to the additional letters and how much due to the activities which accompany the approach? The more letters you have in a language, the more use there is of the same strokes in different combination, and the greater the resemblance of some letters to others; hence, the greater confusion in visual discrimination. However, many children find visual differences easier to detect than auditory differences. If a letter form is given as a visual crutch for the auditory impression, perhaps the auditory impression is more easily established. But here, again, if auditory discrimination is so difficult for many children (and readiness tests show this), why teach the language mainly through its sound rather than through its appearance?

These are some of the questions which the recurrence of a discarded method raises. Only time and careful evaluation and study will yield the answers.

Most modern approaches to the teaching of reading to children which have been designed in consideration of all tried approaches (instead of simply being a revival or continuation of a traditional approach) are designed in recognition of the fact that some of the approaches described above are not very helpful and that others are not entirely satisfactory. A combination of approaches is used, so that the deficiencies of one approach will be offset by the strengths of another.

For example, a story approach may be used so that children will be highly motivated to read and will read for meaning immediately; but, simultaneously with this, a word approach is added, so that children learn words, even a phrase approach so that children learn to read words in phrases rather than jerkily, a letter form and sound approach so that children can solve new words, and a structural analysis of words so that children can learn to recognize immediately parts of words (verb endings, for example) instead of sounding each letter separately.

Ways Children Learn.

The way the teacher teaches these approaches is as important as the choice of the approach. In India, as in many countries, the traditional way in the primary classes has been for the teacher to say and for the children to repeat, the teacher to do and the children do the same. The entire burden of thought rests with the teacher. If everything is taught in this way, the child learns to read, but he also learns to wait for someone to do the thinking. Not only does he fail to read thoughtfully but he learns a habit of mind more suitable to a slave than to a free man.

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* Nila B. Smith, American Reading Instruction, revised, International Reading Association, 1964.

Whatever approaches are chosen for teaching language, educators must present these approaches in such a way that children share the initiative. The beauty of this way is that the learning itself is more impressive because the children have "invested themselves" in it, thought through it, given it enough attention to make discoveries about language for themselves. So the teaching of reading suitable to the education of a free man is also the most effective education.

The practises listed above may be judged by the following pieces of evidence on childrens' learning.

Children learn most readily when:

They understand the organization of their work. (For example, a sentence is an organization of words which the child has heard and used in speech).

They can associate the unknown with something known. (For example if the child sees a picture, he can sometimes determine the identity of a new word on a page of known words. If more than one word is new, his job becomes either more difficult or impossible).

They are informed immediately whether or not they are right in their response, and can correct their thinking accordingly.

They are helped to discover a fact about reading, rather than being told the fact. (For example, the child who knows the words की and कि , can have the two words written, one below the other, and discover by pronouncing and looking, that the i sound is produced by ि ; whereas, if he is told, he may only forget, or remember with less assurance.)

They know the meaning of what they are learning. (For example, it is easier to learn the forms of real words that the child knows the meaning of, than to learn the forms of invented words which have no meaning for him. This does not preclude the use of nonsense words in practising an established learning, but practice on something useful is more rewarding in the long run).

Rote learning follows discovery of a fact about reading. (For example, once the child discovers that the i sound is produced by ि , he can practise the combination of this letter with other letters to acquire speed of association.)

They learn a method of learning for themselves, as well as the particular fact. (For example, if a child forgets the sound a letter makes, he needs only to think of two words containing the letter, in order to generalize the sound).

What they learn has many immediate applications. (Delayed application or little application means loss of learning).

One learning is built upon another rather than being completely unrelated. (The first thing learned is reinforced as it is used in learning the second thing).

They are encouraged to analyse wholes into parts and to build wholes from parts.

Meaning, name, and form are given attention at all stages of reading development.

CONTROLLED VOCABULARY

An American publisher of a reader series in English for American children has presented the following table to show the control of vocabulary in the series from standards First to Sixth.

	Primer*	First	Second	Third	Fourth	Fifth	Sixth
No. of New Words	99	171	449	582	691	1,012	1,300
No. of Different Words	155	326	775	1,411	2,080	2,943	3,887
Average No. of New Words per 100 running words.	1.4	1.4	1.0	1.0	1.1	1.5	1.5
No. of Pages in Text	184	216	499	610	439	467	474
Maximum No. of New Words per Page	1	2	2	3	4	6	8

The philosophy of controlled vocabulary has been attacked on various grounds. But in considering the value of the control of vocabulary, one must not be confused by the chance association of control with other factors. The artificiality of language in the early books of some reader series is one of these other factors. Insipidity of story content is another. Boredom of children with such books is another. Control, in itself, does not necessitate artificiality, insipidity, or boredom.

Artificiality is a conglomerate. It can be composed partly of the writer's timidity and lack of imagination as he faces the difficult task of saying something in a few words. It is easy to say everything in the same way; in fact, it is a temptation; whereas a little imagination and a little attention to the way children really talk will suggest alternatives which make for variety and charm and learning. Artificiality may also exist because the writer does not know how children talk or how adults talk to them, and he has not even consulted studies which would give him these facts. Or the writer may be in a rut of the imperative: look, see, run, come, go, get, take, make. It is true that the imperative form of the verb and sentence is used a great deal by children, but not to the exclusion of the many other sentence types which children employ even before school age.

Another reason for artificiality which is not due to vocabulary control is the peculiar position of the reader in the educational process. The book is expected - by parents, board members, grammarians, and moralists - to be a paragon worthy of emulation. Ungrammatical speech, irreverent or disrespectful speech, must not occur in this book, however prevalent and natural it may be in children. One does not quarrel with this view, since there are plenty of influences throughout the society to stress the less desirable practices in language and attitude, without adding a book of them to be studied intensively.

However, there needs to be some sort of truce with grammarians and moralists, so that natural behaviour and moods of children are not entirely absent from the book. As long as the reader is required to take a position half way

*Three pre-primers containing 56 new words precede the Primer.

between the grammarians and the angels, the content of the reader will strike the observer as being artificial, regardless of the presence or absence of general vocabulary control.

Insipidity of story content is the easy way out of a hard situation. It is harder to say something in a few words than it is to say nothing in a few words. Good children's authors are proving that single books can be written in a simple vocabulary and still be charming and popular. Good children's authors tend to be people with ideas, who start with a good idea and tailor the wording to the limited vocabulary, rather than people who start with a limited vocabulary and rack their brains for a plot to fit it. It is basically sound to start with something one really wants to tell, and then to think about ways of simplifying the wording without injuring the ideas or the flow of language.

As for the boredom children experience in a reader series - that, too, is a conglomerate. Some children are "bored" because they find the work too difficult and use the excuse of boredom as an acceptable cover-up. Some children are "bored" because, for the first time in their lives, they are required to put forth effort on something that is not easy, something that takes persistence and concentration, with slight reward as compared with sitting on a parents's lap and being read to, rapidly and with no effort on the child's part except attentive listening. Some children are "bored" because they want to read about something else. If we gave in to them, they would never broaden their reading interests to the extent that they can under teacher guidance through relatively easy reading materials. The answer to them, of course, is to provide time for hearing other stories and looking at picture books and, later, reading books of their choice, without the educator's giving up the materials and instruction which provide for steady growth beyond what the child might on a random basis acquire for himself.

There is a legitimate boredom - the boredom of a child who is reading a book much too easy for him in idea. Boredom comes from lack of ideas that can be grasped and appreciated, not from simple vocabulary expressing those ideas. Stories in a reader series must have much more to them than appears on the surface. The bright or thoughtful child must be able to find challenge in them, while the duller or less thoughtful child may at least get the surface idea.

The Rationale of Controlled Vocabulary.

In a completely phonetic language, children can be taught the sounds of the letters of the alphabet and thereafter sound out every word in that language. For some of the words, they will know a meaning. Perhaps a word has more than one meaning. Only through reading the word in many sentences which use the word with its different meanings, will the child finally know the word as a meaningful unit with its different meanings. Some of the words which he can sound, he has never heard before - perhaps will never hear unless he himself or someone else reads aloud. He must learn each word of that kind in sentences containing words whose meanings he knows, until the meaning is clear to him.

But when one reads material in a completely phonetic language, equipped only with the sounds of letters, a peculiar thing happens to him. He becomes a sounder of letters, a slow recogniser of word identity by its sound. If you show him a word quickly and then remove it from his sight, he cannot tell you what it was. He may tell you the first letter or so, but cannot tell you the whole because, even though he may have seen that word several times, he has not been looking at it as a whole but as a series of bits - letters - each with a sound of its own, to be added to the next, and so on. He needs to learn an additional way of looking at a word.

One idea behind a controlled vocabulary is that if a child sees some words often enough, he will look at them as wholes and develop a quick recognition of them which, with phonetic attack, would be impossible. Not only this. Phrases which reappear over and over will ultimately become so familiar that they may be grasped immediately on sight, without laborious letter-by-letter observation.

In a language which is not entirely phonetic, controlled vocabulary has an added meaning, for some words could never be analysed satisfactorily by letter-sound, and must be learned by sight, as wholes, with many repetitions. Logically, if we were to teach unphonetic words by sight-method and phonetic words by sound method, the resultant reader would jerk his way through life, using quick and slow methods of recognition on unphonetic and phonetic words, respectively.

A controlled vocabulary gives the sound, sight, and meaning approaches a congenial environment. All words are experienced - introduced and encountered - as sight words. Those which can be sounded out are studied both as wholes and as sequences of sound units. All are imbedded in sentences, paragraphs, and larger compositional units which remind the reader of their meanings, and of the possible changes in those meanings when different contexts are used.

An additional idea behind controlled vocabulary is that reading skills - like other skills - are learned when everything except the new learning is familiar and easy for the learner. The textbook with a controlled vocabulary makes it possible to teach the various skills of reading and language with a minimum of obstacles for the learner. The new words are learned in settings of old words. When the new words have become familiar in the first reading of a story and in further discussion and observation of it, such matters as paragraph structure sentence structure, plot structure, grammatical agreement, word choice, main and subordinate ideas, implications of the content, and new techniques of analyzing word forms and meanings can be started in this familiar vocabulary. Skimming to find a part in the story or proof of an opinion can be practiced on this same familiar material. Thus, attention can be concentrated on the technique being learned instead of its being diverted by incidental roadblocks. Those who are critical of controlled vocabulary may have forgotten this important aspect of its contribution to the teaching of reading.

Unanswered Questions About Controlled Vocabulary:

Unanswered questions about controlled vocabulary make any practical demonstration of it a difficult task. How often should a word be repeated in a story, in order to be initially grasped as a unit with a meaning? How often thereafter must it be repeated, in later stories and in later books, to be retained as something firmly learned? How many times should it occur for a dull child? For a bright child? How many new words can be learned each day, with such recurrence, - by bright children - by dull children - by average children (whatever we mean by these terms)? Which kinds of word need more practice than others? Which words should be learned first? How can illustrations help the child's quick recognition of words, and to what extent can they make possible the learning of more words than otherwise possible? What kinds and amounts of additional encounters with these words must the teacher provide, with and without the book, for bright, average and dull children to learn them firmly before another story is studied?

No one knows the answers. The controlled-vocabulary readers which are published are the best guesses of authors and editors, tried out on some children of varied status and background, and corrected on the basis of teachers' suggestions and observations and tests. But there are so many factors involved in the suitability or unsuitability of a programme of instruction to a given child, that any book must have variant treatment. That is, with some children, the teacher will have to go slowly, perhaps with the aid of chart exercises, short-exposure (flash card) exercise, and story writing in the same vocabulary, before going on to the next story. One story may be so strange in idea for one group of children that the teacher will have to lay the groundwork for it a day or two or even a week or two ahead of time. With other children there may be no need of this, and they will grasp the idea and the words easily. Such will be the mastery of the bright child that he can learn skills readily in the easy vocabulary of the textbook and then apply them in harder independent reading of his choice. Such will be the uncertainty of the duller child that he will learn the skills less readily and will have to have practice using them on perhaps even easier books than his textbook.

Another idea behind controlled vocabulary, then, is that it is not to be the sole reading diet of the learner. The learner will be given other aids and exercise for his learning. He will also read other harder books if his textbook is very easy for him, easier if his textbook is hard for him. The controlled vocabulary is the incubator in which his skills can be nurtured, the incubator from which he sallies forth to try his skills and then to which he returns for further skill acquisition.

Nobody asks the baby whether it prefers its incubator to the outside world. Nobody with the baby's welfare at heart removes him from the incubator suddenly. Nobody says, "Oh, this is piffle. Let him try lifting these weights." When it is a matter of life and death, of health or crippling, we seem to understand very well the need for careful nurture. It can be hoped that we can profit by this analogy in considering the desirability of controlled vocabulary in the early life of the reader.

The Numbers Game.

How is a controlled vocabulary built? In theory, you start with one or two words on a page, repeated in whatever variety is possible. On the next page or so, you add a new word, which is now an unknown word with two semi-known words. On the next page or so, you add another new word. Now it is one new for three partly-known. Perhaps the remaining pages of this story repeat these words in various combinations, giving the child a firmer hold on these new learnings. By this method of adding one or two words to a page here and there, and of repeating old words with them, the reader builds a sight vocabulary.

But later books have smaller print and longer sentences and more words per page. Then there may not be a new word every page or so, but an average of one or two new words per hundred running words (See the chart on page 58.) The idea behind this proportion of new words to running words is that easy reading has been defined (as far as vocabulary difficulty is concerned) as the presence of one new word in a hundred running words. Numerically keeping within this definition the book companies in the U.S.A. give some assurance that their materials are easy enough to be read with some fluency, good comprehension, and ease in learning new skills.

How do the authors maintain, as shown in the chart on page 1, a proportion of 1.4 new words per hundred running words at primer and first reader levels? Not counting the pre-primers, the primer and first reader contain a total of 410 pages. Two hundred seventy of these words are new, in a total of 326 words. Clearly there are many pages which do not contain new words at all. There is room for generous repetition and helpful illustration to bolster the identification of form and meaning of new words when they do occur.

Contrast with this the dilemma of the Reading Project Team in India. Existing readers in the Hindi medium do not control vocabulary in a systematic way. Each class has a little book, and in each little book are many words and sentences, embracing a very large vocabulary. The prevalent method is to have the children sound out the words and to imitate the teacher's oral rendition of sentences and paragraphs, often to the point of memorization. Oral rendition is considered proof of the learning.

To produce a book which can be sold for as little as the existing competing books, we had to keep the Primer and First Reader to a combined total of 96 story-pages (exclusive of other material). The consumer might say, "In the same number of pages this new book teaches________ fewer words than those of the books children read earlier. What is the advantage?"

In the English language there are about 3,000 words which are used over and over again, regardless of the subject the user is addressing. It has been estimated that these words account for about 95% of the running words in English reading material. That is to say, if this vocabulary is taught to the child, chances are that anything he reads will buttress the unknown word with about nineteen words that he does know. If he can sound this word out, or analyze it for its structure, or determine its meaning from its picture or its use in the sentence, he can safely read such material. Reader series up to the sixth standard (grade) in the United States attempt to equip the English-reading child with these basic words.

Is there such a group of words in Hindi which, if learned, will equip the child for almost any reading situation in that language? If so, is it smaller than the English number? If such a group of words in Hindi were smaller than the comparable group in English, then it could be reasoned that fewer words need be taught in basal instruction. If it is larger, then the task is greater, and theoretically, if Hindi words are as hard to recognize and associate with meaning as English words are, more pages of reading should be required. If Hindi words are easier to recognise and read, then greater flexibility in the approach would be desirable.

This argument deserves close scrutiny. In the first place linguists would not agree that Hindi is completely phonetic, as several points of deviation are noticeable. For example, in its final position in a word the consonant is not normally sounded with its accompanying 'schwa' sound. There are two ways of symbolizing the presence of a vowel and a number of ways of indicating nasalisation or consonant combinations. These, as we know, could be a burden upon the young reader, though it is granted that in comparison with the child's task in learning English, this is simpler.

Secondly, the point of a controlled vocabulary is not to have children sound out words over and over again but to recognize them as wholes over and over again, until the word becomes as much of a personality as the form of a neighbour against the light. Even though all the details cannot be seen, you still know it is your neighbour. That is the kind of quick recognition which makes rapid reading possible. The fact that Hindi is phonetic does not rule out the necessity of repeating a word-form until it is familiar as a form and until it is clearly associated with its meaning. There will have to be a certain amount of repetition of new words for them to be established as sight words, regardless of the phonetic character of the language.

Search for a Solution.

There are several ways of meeting this problem other than raw courage and blind persistence.

1. A study must be made to determine the common vocabulary within the larger vocabulary of current textbooks which the child is required to read in the different classes for which the readers are being designed. What are the words common to the child's social studies, science, and literature books? Which of these are apparently the most useful?

2. Secondly, how do these words compare with the spoken vocabulary of children? Priority should be given to the words children actually speak if authors are thinking not only of the commonness of words in textbooks but of the ease of their learning. We learn best the familiar and the used.

3. The common words in the textbook vocabulary and in the spoken language of children should be analysed and classified by part of speech.

4. Common sentence structures and idioms in the language should be listed from established linguistic analysis plus the analysis of children's spoken vocabulary.

5. For the early books in the series, the utility of words of certain kinds should be considered. Nouns make it possible to write of many things. However, each noun introduces the necessity of agreement with the verb in gender and number. Each verb is an opportunity to bring more action (ergo interest) into the story, but each tense creates a new word (any variant ending creates a new word until the child has been taught to see the stem and the ending as known entities in rapid recognition), not to speak of variation in endings because of gender and number. Each adjective lends vividness, but adds three words if used with nouns or proper names of different gender and number (until these variant endings have been taught with one or more adjectives). Adverbs add distinction of degree and manner, but mean, in a limited vocabulary, one less of something perhaps more useful. Interrogative pronouns and interrogative adverbs are so prevalent in children's conversation with adults, at least, that they deserve some place in the early vocabulary; yet, more than one or two are an extravagence in comparison with the utility of other parts of speech. "Yes" and "No" are natural and useful but need not be introduced together or immediately. Notice the happy avoidance of change of gender in reply when Amar can say, "Are you coming?" and Rani can say simply, "Yes". A few proper names can ward off the necessity of using pronouns for some time; yet ultimately proper names will be much less useful than pronouns. Conjunctive adverbs such as "because" and "when" make sentence complexity possible, but very frequently require the use of pronouns. The imperative form of the verb, on the other hand, requires neither pronoun nor proper name. It is amazing how long conjunctions can be done without, although "and" is highly useful whenever it can be afforded. The most versatile and useful post-positions, such as "of" and "to", make sentence variety possible, but there is that gender problem again.

6. For the early books in the series, the support a word can offer in the word analysis programme should be a consideration in its inclusion in the vocabulary. A verb which is conjugated like another verb is an opportunity to generalise about stems and variant endings, and, from that time on, to consider the variant forms of a like verb as one new word. If one word is a part of a compound word, that word and the compound word can be analyzed to reveal the second part of the compound; or, two parts can be built into the compound. In

English, man and post will give the ingredients for postman; milk will add milkman; etc. Similarly with prefixed and suffixed words: two words with a common part and a meaningful remainder yield new and useful information. It is not the intention here to suggest that only words of such comparability should be in the early vocabulary, but that, in a choice between two words, this should be a factor in the decision.

7. The potential vocabulary should be scrutinized for words which have more than one common meaning. If the common meanings of a useful word can be developed through the stories and exercises in the textbook, one word instead of several has to be recognised. So the recognition problem is minimized while the meanings are multiplied. "Good" and "run" in English, and "achch'haa" and "chalo" in Hindi are examples of this. Similarly, certain phrases and sentences are used in natural conversation which can express many meanings and moods. Take the English "Is that so?" or the condensation, "Oh!"

8. The early books should minimize confusion among word-forms in at least two ways: (1) Try to have in the early vocabulary words of different length and shape, particularly if they hold the same position in the sentence; let initial letters be different, if possible, so that left-to-right observation will immediately give the clue to difference. (2) Avoid introducing "words-of-a-feather" in the same lesson. That is to say, if all the colours (red, green, etc.) are introduced in one story, children will mix them up; if several verbs meaning "to convey" are introduced in the same lesson (lana, (bring) lena, (take) dena, (give) bhejna, (send)), they will be confused. Words too close in meaning or too close in form, or (as in lana and lena) both, cause trouble for the reader.

9. Stories should be chosen which utilize the same essential words. If, for example, the last story in the book is planned to be a story of a crow and a peacock, it will be difficult to avoid the words crow and peacock. Or, if the story is of the topiwala, (cap-seller) it will be difficult to avoid the word colours and the words red, green etc., apart from topiwala and topi, of course. Instead of burdening this last story in the book (beyond which there is no provision for repetition of new words through additional stories) with a dozen such words not to speak of others that may be unavoidable, the author plans to introduce some of these words in earlier stories. This means that some of the earlier stories should use one or more of the colours, and that these should be repeated in additional stories if possible until the topiwala story is reached. It will not be nearly so disastrous to the child if he forgets topi over the vacation, but he will need colour words very often in his school work.

10. If a greatly desired story contains too many new words, alternatives to the use of some of these words should be explored, such as:

(a) saying the same thing in another way;

(b) suggesting rather than saying outright;

(c) using an illustration clearly showing the object, which after study of the illustration, can be referred to by a pronoun;

(d) (if gender is problem) giving the comment to another character;

(e) changing characters in the story, or reducing the number of them;

(f) changing other items in the story, or reducing their number.

12. If possible, the early stories should utilize settings and activities familiar to the child (even stories he was told before he learned to read) so that the ideas have the ease of the familiar and the main effort may be directed toward recognition.

13. Stories should be chosen for their interest to children. Children are known to like stories full of action. Therefore, verbs should be favoured. Children enjoy stories of animals acting like human beings. They find stories of wild, ferocious beasts thrilling. They also like lovable animal characters, or clever ones who play successful tricks on bigger ones -- a pastime of their own with adults. They like a hero their own age, if the story is about people. Elements which make a story easy and interesting produce great concentration on the reader's part. The greater the reader's attention, the better he will learn.

14. The exercise pages in the book, in the workbook and in the manual should provide for intensive learning of the new vocabulary by:

(a) using words which will be new in the following story, in word analysis exercises;

(b) repeating words from previous stories (in comprehension exercises and word meaning exercises) in order to increase the number of their appearances in the book;

(c) using sentence settings or word-meaning settings in the word analysis exercises so that meaning will be associated with form;

(d) using the contents of the exercise pages and story pages for more than one purpose, so that re-reading of the same words for new purposes will give additional practice in recognizing them;

(e) providing comparison of new word-form with forms of old words with which the new may be easily confused, so that the difference is firmly established;

(f) using words like "read" or "look" in the directions on the exercise pages, requiring their analysis and reading by the children, thus establishing some familiarity before they occur in a much later story.

15. Directions should be given to the teacher, in the lesson plans of the manual, to provide many experiences with new words in addition to those provided in the book and workbook:

(a) having the teacher introduce new words before the reading of a story, in oral and written settings;

(b) having teacher build stories with the new words and old words, either using cards on a pocket chart or chalk on the blackboard; (the children listening to the commentary, watching the writing, and volunteering to read)

(c) having the teacher write questions using the new words;

(d) having the teacher write directions using the new words, which the children must follow in order to do assignments;

(e) having children learn to write the words, saying them as they write;

(f) having children build sentences and stories using the new words, on the chalkboard, on the pocket chart, on their individual writing boards, in the dust;

(g) having children act out the meaning of what is written, to prove that they know the meaning, draw its meaning, or express its meaning in other words;

(h) having children find the new word quickly in all the places they see it in the classroom, and prove by reading (on the blackboard, on charts, on assembled writing boards, on cards);

(i) having teacher flash cards for quick recognition of easily confused words, after their differences have been studied, pointed out, and written;

(j) having children keep a written record of what they know about words;

(k) having children make their own picture dictionary of words they know by sight;

(l) having children make up learning-games with words, phrases and sentences, such as pairs of children taking cards one at a time, and seeing who will be first to compose and read a proper sentence made up of as many of the words as can be reasonably used (if the other child can add another word from the winning child's cards, the other child wins instead).

16. All of the words finally used in the stories in the book should be studied for ways in which their early analysis can forestall the necessity of treating them all as new words (for example, the forms of one verb becoming a means of making variant forms of other verbs familiar), and a sequence of learning should be planned with these, based upon their relative difficulty.

17. All of the words finally used in the stories in the book should be studied for the sounds and sound combinations which can be taught through them, so that word analysis skills complement the sight vocabulary programme.

18. All of the words finally used in the stories in the book should be studied for their relationships in meaning, as a basis for word meaning exercises which will create repeated use of the new words.

19. Sentences and paragraphs in the stories in the book should be studied for the possibility of teaching ways of detecting the meaning of a word by its use (context clues), so that expectation of a meaning will facilitate recognition of a word.

20. Sentences and paragraphs in the stories in the book should be studied for the possibility of teaching accepted usage and grammatical principles, so that expectation of a pattern or form will facilitate recognition.

21. Supplementary readers or children s books which have additional practice in the vocabulary and ideas of the stories in the reader series should either

be made or found in existing literature and recommended to the schools as reinforcement of the skills the child learns through the books in the series. Reading skill is not maintained unless the habit of reading is established. Furthermore, many children need more practice in encountering words in meaningful settings, than a single reader can provide.

For many children, the alternative to controlled vocabulary is inefficient learning, time wasted. For some children the alternative is failure. Controlled vocabulary is not a synonym for artificiality, insipidity and boredom. It is a synonym for hard work on the part of authors, intelligent co-operation on the part of teachers, and better learning on the part of the child.

PROPOSED STATISTICS ON BOOKS PRIMER TO BOOK V

	Primer	First	Second	Third	Fourth	Fifth
No. pages per book..	82	88	120	152	176	200
No. of running words (counting 7/8ths pages 1/8 pictures)	490	1558	10,206	15,711	20,300	28,095
No. of words per full page..................	4		144	171	200	231
Size of type.........	36	36	24	18	16	14
Length of line (inches)	4	4	4	4	4	4
No. lines per full page	8	9	18	19	20	21
Average No. words per line..................	5	5	8	9	10	11
No. of words per story	24-87	125-400	375-500	450-600	525-875	800-1000
No. new basic words per book (not counting learned variants).....	59	118	255	393	508	702
No. different words per book.............	59	177	432	825	1333	2035
Ratio of new words to running words........	1:8	1:13	1:40	1:40	1:40	1:40
Average new words per school day (theoretical only)............	.6	.8	1.2	1.8	2.3	3.3
No. new words per page (average)............	1.2	2.5	3.1	3.7	4.4	5.1
Desirable minimum no. of repetitions new words per story......	5	5	5	5	5	5
Desirable min.no. recurrences of new words in later stories in book.................	5	5	5	5	5	5
No. stories per book: short................	8	8	21	24	24	28
long.................	-	-	1	1	1	1
No. pages per short story................	4-7	4-7	3-4	3-4	3-5	4-5

	Primer	First	Second	Third	Fourth	Fifth
No. pages long final story................	-	-	10	12	14	16
No. words in long story	-	-	1260	1795	2450	3232
No. of units per book..	3	3	5	7	7	7
No. of stories per unit................	2-3	2-3	3-4	3-4	3-5	3-5
No. of story pages...	51	46	78	105	117	139
No. of exercise pages................	21	28	24	22	25	29
No. of test pages....	6	8	6	8	8	8
No. of unit title pages................	-	3	5	7	7	7
No. of pages of vocabulary list........			3	4	5	6
No. of pages of glossary............	-	-	-	2	10	15
Table of contents page	2	1	2	2	2	2
Acknowledgments page...	2	2	2	2	2	2
Total No. of book pages................	82	88	120	152	176	208

In developing the Primer and Book I of the Hindi Reader series our Team encountered many difficulties. Some of them were necessary. For example, in exuberance over the repetition of new words, the writers found themselves trying to put fifteen to twenty sentences on a twelve-line page. But some of the difficulties could have been avoided by more detailed planning and fore-thought. In order to avoid a recurrence of hardships, we drew up the chart on the preceding page. This chart defines the limits and conditions which must be observed by editors and authors in producing the remaining books in the series.

The following is a brief explanation of each item:

Number of Pages per Book: These figures were determined by study of the cost of book production and of the length of existing Hindi readers. More pages per book will mean more expense to the schools and parents or reduction of quality. Neither of these can be afforded.

Number of Running Words: Running words are all the words, counted in order of occurrence in a book. Beginning with Book II they were determined by multiplying the number of story pages by 7/8ths of the number of words per full page. The figure 7/8ths, assumes that on about every other page there will be a picture taking up about 1/4 of the page. These figures do not allow for the fact that some lines will not be full, as in the case of conversation, paragraph indentation, and a short last line in a paragraph. Hence the figures somewhat over-estimate the number of words which will ultimately be in the books. It is possible that even fewer illustrations will be used in the later books than the ¼ page for every two pages of text. If so, the estimate of running words may be closer to the ultimate fact.

No. of Words per Full Page: These figures have been obtained by study of the number of words in a line of print, and the number of lines to a page in existing Hindi readers. This again is an over-estimate because (a) broken lines will have fewer words and (b) type height and width may not be the same used by existing Hindi readers.

Size of Type: According to American research on size of type and visual fatigue and legibility, and in accommodation of the differences between Hindi and Roman script, the type sizes to be used at the different age levels were determined. Probably at sixth standard a 12 point type should be used. This is also desirable for material to be read by adults.

Length of Line: American reader series, in accordance with research on the desirable length of line, maintain a four-inch line at all elementary grade levels.

Number of Lines per Full Page: The number of lines per full page was determined by study of existing Hindi readers and also readers in English. Type size and leading, as well as size of page, determine the number of lines a page can hold.

Average Number of Words per Line: These figures were found by counting the words in the different sizes of type and assuming a four-inch line. Several counts were made of several full lines in a given book, and the average was taken.

Number of Words per Story: The figures for Primer and First Reader are actual; the remaining ones are proposed. The proposed figures were produced by multiplying the number of words in a 7/8ths page by the number of pages proposed for each story.

Number of New Basic Words per Book: A word is considered new if it has not been introduced before in the reader series, as a sight word in story content. Variant forms of words are considered new until the forms have been studied and recognized by the child. Once the 18 forms of a regular verb in Hindi are studied for their differences, later verbs of similar conjugation are counted as one new word apiece, not eighteen new words. Similarly, once the gender and number endings have been learned, a new word appearing in those forms is counted only as one, not three or more. Similarly with compound words, once the parts of the compound are known. Hence there will be many more words learned in the Hindi series than are indicated in the tabulation here.

The proposed books through fifth standard are to present 2035 new words (plus variant forms). A vocabulary of 2000 words is usually achieved in American series by the end of fourth grade. However, English does not have so many variant forms as does Hindi.

Number of Different Words per Book: This accumulated total of different words is a summation of the words, from one grade to another. For example, the 177 new words from the first standard, added to the 255 of the second book, produce a total of 432 words for use in Book II.

Ratio of New Words to Running Words: The ratio of new words to running words in American reader series is usually kept as close to one new word for every one hundred running words, as possible. The ratio of 1:40 proposed for Books II-V, is a compromise figure which means that fluent reading-for-meaning will be impossible if words are not introduced carefully and amply before the story is read. The 1:40 ratio was necessary if as many as 2035 new words were to be introduced in the first five standards, and if the books were to be as small and inexpensive as other current Hindi texts. If these two thousand words are carefully chosen from among the most common words in the language (in speech and in current textbooks for primary classes) children should be equipped to meet reading demands with fair competence. Of course, because stories always include some words of less significance, all 2,000 will not be the most common words.

Average No. of New Words per School Day: This is a purely theoretical average, because a teacher does not teach two new words a day when he introduces a story. He may present several which serve a story, and then deal with that story for several days. However, if the handwriting lessons were to be budgeted so that each day a child would study one or more of the new words from his reading lessons, learn to write them, say them, and use them in connected prose of his own writing, the average number of new words he would have to study per day ranges from less than one in the Primer to more than three in the fifth book.

Learning rate does not ordinarily increase unless greater intelligence, greater familiarity with the method, or more techniques of learning are involved. Certainly, as children progress through the books, they will become familiar with methods of learning words; and, as they learn new techniques for analyzing words, the new words will not be so entirely new to them. Hence there is some justification for expecting more words to be learned per day at the fifth standard than at the first. Because of individual differences in background and ability, some children will learn these amounts with less work than others.

Number of New Words Per Page: These figures are a result of dividing the number of new words per book by the number of story pages. The increase from class to class reflects the decrease in size of type and leading, and the increase in the number of lines per page.

Desirable Minimum Number of Repetitions of New Word per Story: The number 5 is a purely arbitrary figure. Actually it will be impossible to repeat some words as many as five times within a story. Some children need to see a word many more times than five in order to recognize it again as that word and meaning. Some words, also, are harder to learn than others, because of their shape (too much like many other words), sound (difficult to pronounce and memorize correctly), and meaning (abstractness or rarity in the language). The figure 5 is offered as an aim with all words, so that by the initial reading of the story, plus subsequent re-reading of parts for different purposes, plus word exercises and word study, the words will have several settings in which to be recognized - several settings to hint at their meaning and identity, so that learning can take place.

Desirable Minimum Number of Recurrences of New Word in Later Stories in Book: A word which is introduced in one story and never repeated again in the book is likely to be forgotten. A word should be introduced in one story and repeated in stories thereafter as often as possible. For this reason the last story in a book, before a long vacation, usually introduces few or no new words, and concentrates on the repetition of words previously introduced. (This repetition is called "absorption".) Later books should repeat words of earlier books in the series. Fortunately, if the words are chosen initially for their common appearance in the language, they will recur without undue effort on the part of authors and editors. Fortunately, repetition of a phrase or a sentence is an element in Hindi style.

Number of Stories per Book: Determination of number of stories a book can absorb is a matter of the length of the book, the number of units in it, the minimum number of stories to represent the facets of the unit topic, and the length of stories children of that age group seem able to endure. Beginning with Book II it is planned that each book will contain one long story, to give children who have little opportunity to read extra books the experience of reading a story of "book-length". "Book-length", of course, is an exaggeration of what can be offered in such small books as those of the reader series. It is thought that this story should be selected for its worth and interest to children, and should utilize the skills so far developed rather than for introducing many new learnings.

Number of Pages per Story (Short; Long): Because the Primer and First Reader have a large type face and few lines per page, the stories involve more pages than do those of later books. While Books II-V show little or no increase in number of pages, the decrease in type size and leading, and the increase in number of lines actually result in longer stories. The long final story is two or three times as long as the longest "short" story in any given book of the series.

Number of Units per Book: The Primer and First Reader contained three units each. Seven units and a long story are proposed for Books II-V. The first books had fewer units because of the limitations of vocabulary and book length. Also, as children's horizons widen, there are more things they wish to read about, and the teacher is responsible for extending children's interests beyond existing ones. Children's literature covers a wider and wider range of topics from age to age. A unit permits concentration and repetition of vocabulary and concepts within an area, so that the resultant learning has greater depth than it would have if each story were in an entirely different field.

Number of Stories per Unit: There is a slight increase from Primer to Book V in the number of stories per unit because the books are longer and the number of words per page is greater from grade to grade.

Specifications on Number of Pages of Varied Content in Each Book

The remainder of the chart on page 69 shows the number of pages to be devoted to various content, to comprise the total number of pages in each book.

Two exercise pages follow each story of Primer and First Reader, while one such page is proposed after each story of the later books. Exercise developing word meaning, word analysis, word recognition, and comprehension skills is provided in the book so that both teacher and children will treat the book as means of learning new things about reading and not solely as a traditional elocution exercise. Tests of various reading skills conclude the book so that the teacher can check on the effectiveness of the learning and so that both teacher and children will recognize that the book intends a variety of reading outcomes, not just the sounding out of words. A title page for each unit serves as an introduction to the group of stories within the unit. At the end of each book a list is given of the words new in the book, presented in the order of their occurrence. This can be used for word study, if the type is of suitable size. For the teacher it is a quick reference for the location of words requiring additional exercise.

In Books III, IV and V word glossaries will be provided. At those levels there are increasing numbers of words whose meanings or pronunciations are unfamiliar to the children. Also, this is an opportunity to give reference experience to children, supplementing other dictionary work and preparing them for it.

Beginning with Book II in the series there will be some stories for which acknowledgement of authorship and publisher must be given. The Primer and Book I stories are original or from old tales before the age of copyright.

A table of contents is provided in each book. Learning to read a table of contents is a skill which can be learned, little by little, as children use the table of contents in their reader. It is also an opportunity to read a story-title without picture clues.

These specifications are offered in the hope that the necessarily long labour of developing a series of readers will not be further lengthened by lack of foresight.

EFFECT OF 1:40 RATIO OF NEW TO RUNNING WORDS

Page 1			Page 2			Page 3			
40 wds.	40 wds	40 wds	40 wds	40 wds	40 wds	40 wds	40 wds	40 wds	40 wds
1 new -	2 new --	3 new ---	4 new ----	5 new -----	6 new ------	7 new ===-	8 new ====	9 new ====-	10 new =====
ratio 1:40	1:20	1:13	1:10	1:8	1:7	1:6	1:5	1:4.5	1:4

The theoretical presentation above shows how the difficulty of a story increases as new words are added, even though the ratio is one new word per forty running words. The presentation actually minimizes difficulty because new words do not ordinarily occur with such amiable regularity. However, it can be seen that, before a child has firmly learned to recognize by sight the new words in a story, in the last part of the story he is having to encounter one new word for every four words. The chart pre-supposes the 1:40 ratio which is being planned for books II-V in the Hindi Reader Series.

The feasibility of such rapid introduction will be shown only by use of the books. The rapid introduction is necessary because a controlled vocabulary series of proper length to introduce a moderate basic vocabulary through the first five years of schooling would be too large and too expensive to compete with existing books for the study of Hindi in India. Besides, other specific steps need to be taken to make the learning of words as efficient as possible; steps such as:

(a) introduction of words prior to the reading of the story

(b) handwriting lessons providing practice and use of the new words

(c) picture and verbal context suggestive of word meaning

(d) sentence - building, using the new words

(e) study of the differences between the new word and other known sight words

(f) flash-card exercise for rapid recognition (following such study)

(g) chalkboard and chart stories utilizing the new words.

In any case, the 1:40 ratio will require learning activities both prior to the reading of the story and following the story, if the new words are to be digested. It may be hoped, in addition, that the earnest endeavour of each child will be seriously enlisted in the task, and that pride may be taken in "now knowing this many words and what they mean, and being able to use them in writing on their own". If the child is not merely made to learn but shown how he can make himself learn, intelligent work habits can reduce learning-time.

PROBLEMS IN CHOOSING CONTENTS FOR A LANGUAGE SERIES

Building a textbook is a matter of making choices. Of all possible contents, which are worthy to be chosen? Given a story of thieves or of heroes, which should it be? Given a story of magnanimity or cruelty, which should it be? The children might like both, but liking is not enough. The following notes guided selection of stories and other types of literature for the Hindi Readers.

The Ideas

What do you want the book to do to the child's conception of his world at this point in child development?

- his physical world: the near (neighbourhood?), the far (outer space?)
  - biological and physical wonders
    - what they are - how they work
    - how the child should treat them
    - how they will treat him
  - the common-place
  - the frontiers
  - the possibilities
- his social world
  - its past - its present - its future
  - what it is - how it works
  - how the child should behave in it and toward it
  - how it will treat him
- his personal world
  - who is he? to what does he belong? whither is he going?
  - imaginative relief (fancy, humour)
  - needs - loyalties - attitudes (scientific, positive)

How will the contents of the book contribute to his understanding of the world, his interpretation of it (constructively, positively), his adjustment to its realities? How will they contribute to his understanding of himself and to his decision about the kind of person he wants to be?

In many schools a class or group studies a book systematically through the academic year. Allowing some time at the beginning of the school year for getting acquainted and reviewing old skills, and some time towards the end for evaluation and review, eight months can be considered the time for which reading matter and skill exercise must be provided.

To provide depth and facets of subject matter, repetition of vocabulary, and the advantage of familiarity with a topic (which makes reading easier), the book might be divided into eight units, each of about a month of reading. Each unit would deal with facets and depth of one topic.

The eight topics should be varied to present the scope of the child's world as it can be reflected in literature.

Probably the last unit, or the last part of it, should be a single long story, to give the child "book-length" experience.

Topics should vary so that:

"heavy" reading (perhaps factual or deep in meaning) alternates with light (humour, adventure) to relieve the strain of continuous effort

the usual needs and concerns of the child are dealt with at the proper time of year (beginning of the year - getting acquainted, making friends; around November in India - Diwali festival, etc.)

Contents within a unit (topic) should vary

as to leading character
    once in a while, it should be a girl!
    - so that the child feels at home part of the time

as to setting (rural-urban; factory-field)
    - to make child feel at home and
    - to give balance to a child's sampling of the world
    (U.S. books have been criticized for having dozens of stories about farmers, few or none about other occupations.)

as to plot (See plot types listed elsewhere)
    (Exception: if the purpose is the comparison of two stories, such as King Arthur and Rana Pratap or Shivaji).

as to type of literature, if possible (poetry, drama, short story, biography, exposition)

as to authorship (so that child learns to read more than one style)

in facets of the topic, to provide the broadest coverage
    (if stories with a moral - different morals
    if stories of animals, different kinds of animal)

in tone (humorous, serious, -) if tone differences are appropriate to nature of topic

in difficulty, so that the beginning of the book is as easy as the last of the preceding book, and the end of the book offers few new problems to the reader (These are known as absorption units - for fluency and for a good attitude toward reading)

Contents within a unit (topic) should be similar in

universality (more than surface meaning), worth (quality of thought and expression)

maturity of appeal (children about same age as the child reading the book, if all about children; written from child's point of view, not primarily for adult amusement).

difficulty in general vocabulary, sentence and paragraph structure, story complexity

frequency of introduction of new words (exception: absorption unit) (One story may be chosen instead of another because it requires the introduction of fewer technical or specialized words.)

the demand on the attention span of the child (the length of story can increase from the first in the book to the last, and probably should, but the increase must be in keeping with the child's ability to give attention. Exception: the "book-length" story for book experience.)

Contents should be suitable to the child's level of development

(i.e. child asserting independence = no mother-cuddling stories
child interested in peers = group, club, camping stories
child interested in anthropomorphism = talking animals
child interested in realism = real animals
child's humour undeveloped = humour of error, exaggeration
child's humour more developed = subtle humour, understatement, etc.)

Contents should support and supplement the curriculum offerings in the school.

Contents should not misrepresent or impugn the beliefs or character of any one group.

Contents should be reviewed by experts in the field they concern, for errors of fact or impression.

PLANNING CONTENTS FOR BOOKS PRIMER TO BOOK V.

At the present writing the Reading Project Team in India has completed the writing of Primer and Book I of the Hindi Reader Series and has developed plans for the remaining books, II-V. A description of the existing manuscripts and of plans for Books II-V is offered here for whatever assistance it may be to others planning such books in a regional language or mother tongue. Suitable contents for one region or one language may not be suitable for another, but the kind of thinking which goes into making the selections should be useful.

Primer (Home)

Unit I - the first unit of the stories in the Primer features activities commonly occurring around an Indian home and stresses helpfulness and cooperation. The first story shows two brothers, the younger helping the older make a rope swing. They invite the little sister to swing with them, but the rope makes her cry. One brother then gets a board for a seat and then they all swing happily. In the second story the little sister likes the swing so much that she is reluctant to eat food in the house, and brings it outside. A crow seizes it and the child's protests bring the family to console her. Father then arrives with food from market and the child's attention is diverted to helping Father bring in the food. In the third story the older brother tries out Father's bicycle and, proud of his achievement, calls to the family to watch him. Watching them, he heads for a tree, and the family's warnings are too late to save him from the collision. He falls but with good spirit brushes off the little sister's concern, saying that he is all right.

Unit II - The second unit moves beyond the family to the vendors who come past the house in village or city in India. The man with the bear comes with his dancing bear to entertain the children in one story. In the second the man with the mango comes and Mother buys just enough mangoes for each member of the family. However, the ubiquitous monkey snatches one away, creating a sharing problem for the family. The mangoes have now to be divided into parts. In the third story the man with the monkey comes looking for his stray monkey and coaxes him down from the tree with a piece of mango one of the boys offers.

Unit III - The first two units have built a vocabulary with which a traditional Indian story may finally be told. However, the words feather and peacock are introduced in the first of two stories in the last unit. In the first story the little girl finds a feather and asks her father what it is. The story offers opportunity for a review of words introduced in previous stories, as well as for amusement over the little girl's ignorance of Nature, as the child asks whether it is a bear's feather or a monkey's. No, it is a peacock's feather. The last story is a story Father might tell the child, the traditional story of the crow and the peacock feather - the crow who tries to masquerade as a peacock by putting a peacock feather in his tail, who is disowned by both peacocks and crows, and decides it is very good to be himself after all.

Book I (School)

Unit I - The first unit takes the reader from the home to the school. In the first story the younger brother of the same family is made ready for his first day at school. He has the misgivings that are in every child's heart as he faces the unknown, but Father and Amar (the older brother) go with him. The young sister stays at home, reluctantly, with Mother. Father introduces the boy, Madan, to the teacher. In the second story the teacher calls out the children's names and, finding that there are two Madans in the class, lets them sit together. Madan goes home delighted with his new acquaintance and proud to be able to write his name. The little sister, yearning to go to school herself, is his willing participant in a re-enactment of learning to write one's name. In this case, he is the teacher!

Unit II - Finding a friend is one problem in learning to feel at home in school. Another is making friends with the teacher. A third is learning to feel a part of the whole class, as one feels a part of a family. In Unit I Madan found a friend. In unit II he and his friend go to school, and Mother smooths the way with flowers for Madan to take to the teacher. He tucks them into his umbrella, as many children do, then forgets and puts up his umbrella for rain. His friend helps him pick up the scattered flowers, and he presents them, a bit the worse for wear, to the teacher. The teacher's problem of uniting the class is solved in two stories, one in which they make a school garden, the second in which their garden has been raided by a stray animal and the children join the teacher in solving the problem of protecting their garden with a fence which they help erect.

Unit III - The final unit contains three traditional stories which the child might tell at school or hear at home. The first is the story of Carrot Halva (pudding) - chosen for its featuring of cooperation. This story went through an interesting metamorphosis in the development of Book I. It was at first proposed that The Little Red Hen and Carrot Halva both be presented so that the children could discuss the rewards of industry (the little red hen's behaviour) and sloth (the people who didn't help her make the bread) as compared with the rewards of cooperation in the halva story. However, for assorted reasons the story of the little red hen was discarded and the halva story retained. Without the story of the little red hen to support its vocabulary, the halva story had to reduce the names of animals and ingredients in making halva, and became the story of rice porridge! It still carried the message of cooperation: He who works, eats.

The story of the cap seller, Topi Wala, was included for its introduction of the names of colours, for its repetition of monkey and wala, for its popularity as a traditional Indian story, and for the amusement which the children find in the monkeys' prank and the cap seller's solution.

The last story is that of the Bird and the Pipal Tree. In this story it is raining and the little bird goes from tree to tree, asking shelter. It is refused for one reason or another, until finally the pipal tree accepts it, and the little bird is happily sheltered with other birds in the generous pipal tree. In his own feelings toward the trees which refused, the reader senses the rewards of selfishness, and honours those who give of themselves. Needless to say, the deeper messages of such a story may be overlooked unless the teacher develops a discussion of them. Teachers are reminded of this in the manual.

Book II (Neighbourhood)

Unit I - Because a vacation has intervened since the reading of Primer and Book I, Unit I must be an easy review of the vocabulary used in those books; at the same time, new words must be introduced. Because familiar material is easier to read than unfamiliar, a classic story that children have been told in previous years will make an easy beginning. Unit I will contain three traditional stories: The Dove, The Crow and the Pitcher, and the Ant and the Grasshopper.

The dove story exemplifies the proverb that in unity there is strength: the dove is caught in a net; and, as the trapper approaches, its friends, other doves, seize the net and carry the dove off to safety. Dove may be changed to bird, since bird was used in the last story in Book I. However, if dove can be afforded, bird can be used to introduce it. For example, "A little bird, a dove, was....." or "A little bird was.....The dove...."

The Crow and the Pitcher is a problem-solving story which also teaches a sceintific fact that pebbles put into a vessel can raise the level of the water in it, the pebbles sinking to the bottom. It repeats crow, a word from the Primer, and water from Book I.

The Ant and the Grasshopper continues the point of Rice Porridge, that he who works, eats. It also introduces the idea of changing seasons, which is to be repeated later in the book. It may be written in dramatic form.

All of these stories have value in lessons for living, without introducing ideas of revenge and killing, dishonesty in a good cause, and other such undesirable behaviours with which the traditional literature is plentifully strewn.

Unit II - In the new school term there is still the problem of learning to get along with other people, peers and adults, - learning to be helpful and considerate of people outside the family as well as in it. One possibility is a poem on the meaning of friendship - when the help is over and the gifts are gone, friendship remains. Another is a story of children who on a rainy day play on a fallen tree which, that night, causes an old man to fall. The children help the man and place a warning for other travelers. Another possibility is the story of children who are planning a picnic, but one of their friends cannot go because there is work for him to do. The children help the child with his work so that he can join them. A third story may be of a new boy at school and the troubles he has until the teacher organizes the pupils to help him adjust to the things they take for granted. This story will be a valuable reference as newcomers enter the class from time to time during the school year.

Unit III - Change is one of the features of life difficult to accept. The sooner one becomes used to the idea, probably the better. Unit III will normally be read at a changing time of year - October - a time for noticing change. A second kind of change is that the child is growing. A third is that India is changing from a country of manual labour to a country in which the hand of man is strengthened by the power of the machine. These three ideas of change are to be blended in this unit.

Unit IV - This unit will probably be read in November, the time of Diwali. It capitalizes on the child's keen interests in the activities before and during this event. It views them from the child's eyes, but helps him see the many people who now make it possible.

Unit V - This is a unit on community helpers - a social studies topic for this second standard (grade) in primary education in India. In stories it shows the work of the people who produce the Diwali festival lamps, the food, the clothing. Children should be prominent in these stories.

Unit VI - This unit closes the book on a note of gaiety and humour and imaginative fun, so that the child is rewarded for the long study and is led to anticipate further joys in reading. If the stories have a moral hidden in them, it should be a good one. The unit will consist of three stories such as The Flower Princess - which makes an excellent puppet show - and The Elves and the

Shoemaker, which is fanciful but earthy, and features kindness. A final long story should be one which can hold in its vocabulary many of the words previously introduced. A story like *The Pancake* or *The Fly* would serve this purpose well but does have a rather sorry ending as a final note to a book. A long story will have to contain good action to hold its young reader while it gives him the experience of sustaining his attention with one plot over a longer span.

It is hoped that the stimulus which this unit can be to the imagination of the child will keep alive his possibilities as a creative human being and will make life bearable for him, whatever it may hold.

Book III (State)

As the Primer dealt with the home, Book I with the school, and Book II with the neighbourhood, village or city, Book III is focussed on the state. Because the children who read this book will be children whose mother tongue is Hindi, the state will probably be one of the ones in Northern India; but because Book III and Book IV share the responsibility of showing Indian life in all parts of India, Book III will contain some stories of the South also.

Unit I - The first unit is to deal with the care of animals, for one of the concerns in India is that animal life is precious and all too often endangered by neglect and abuse. Possible candidates for stories are the bullock or cow, the donkey, the goat ("the poor man's cow") and the animals in a zoo - how the zoo keeper cares for them.

Unit II - Indian classics are again a topic in Book III. The story of the *Brahmin and the Tiger* can be presented in dramatic form. A story which can be compared with it in a discussion by teacher and children is that of *The Brahmin and the Mouse* - the mouse who wished himself into a tiger and developed all the bad characteristics, only to be changed back to the only form which became him. *Lali and the Lions of Gir* is a possibility, except that the moral is that innocent trust can change a preditor's motive - something that the modern world does not appear to confirm. If it is included, the discussion recommended in the manual might well deal with evidence for and against this belief.

Unit III - This unit will present another Indian festival - Rakshabandan, perhaps, or Dussehra - the activities in the modern celebrations of these occasions and the traditional reasons for them. Thus a story of modern Indian children observing and participating in these activities can alternate with the traditional story behind the celebration.

Unit IV - This unit is to show modern Indian child life against a background of the adult activities for which certain states are famous. A story from Rajasthan may tell of a stone cutter's child or of a child of a family caught in the desert-irrigation problem. A story from Bengal or from South India may tell of a fisherman's child. A story of Uttar Pradesh may show the family of a brassware maker.

Unit V - This unit is to deal with the interdependence of people. Its content is science, in that it may present a story on the building of a canal or bund, the making of a soakage pit for water and sullage disposal and for drying up the road puddles, the use of the neem tree for prophylactic and medicinal purposes; and the prevention of disease in flood time (water, insects, innoculation). Central figures will be children.

Unit VI - Unit VI deals with the exploration of the earth's atmosphere, from clouds, kite-flying and balloons to helicopters and aeroplanes. It may include a story on travel to the moon, so that children will have some notion of space exploration and the conditions beyond the earth's atmosphere. A man on the moon may not be such a far-fetched notion when the book is printed - and this is not said pessimistically by weary authors, either!

Unit VII - This is to be a unit of humorous stories centering around animals. The type of story thought of here has many manifestations in world literature - the reluctant dragon, the bull that did not want to fight, the monkey who gets into all sorts of mischief, the little cat who became the most beautiful because it was not vain, the frog who lived in a well and viewed the world, the spider that went around a globe in a library and thought he had gone around the world, the blind men who touched a part of an elephant and mistook it for whatever that part most resembled.

A final long story will conclude the book.

Book IV (India)

Book IV has a national focus. It should inspire justifiable pride in India and the will to contribute constructively to its life.

Unit I - The first unit is based upon the theme - They Gave Beauty to India. It should offer wide coverage of the gardens, paintings, music, sculpture. A scientific touch might be a presentation of the ways in which archeologists determine the age of objects discovered. Possibilities are the Elephanta Caves, Ajanta, Mahabarapuram, Minakshi Temple, the Shalimar Gardens, the Taj Mahal, the Mughal gardens in Delhi. Attention should be given to the motivation of those who conceived the plans for these beautiful expressions of creative genius. The manual might suggest ways in which the teacher can give children creative experiences as a taste of the type of thinking which produced these things.

Unit II - Unit II is The Great Animals of India - an appreciation of the elephants, the bullock, the buffalo, the camel. The wonder of life, the appreciation of the contribution of these animals to the work of India, and a regard for every living thing given to man's protection, are objectives of this unit. Some mention may be given of the tasks which these animals are losing to the machine, and those which remain theirs.

Unit III - They Gave Stories to India. This is a unit introducing children to the way other major languages of India look in written form, with some mention of the sounds and words that are the same or very much the same in Hindi. Each language will be given a brief introduction, and then a story appropriate for children of nine or ten years of age, which has come from that language, will be presented in Hindi. The idea is that Indian languages have given richly to the literature of the world, and stories from them reflect life in various parts of India that should be known to every Indian child. It is his India.

Unit IV - Early Indian Contributions. Genius in Ancient India gave the world a number of inventions, such as the sundial and counting (the language of business). This unit should make a child appreciate the creative thinking which made India great, and the kind of observation which made it possible. Nothing is ordinary except to the person who has stopped thinking.

Unit V - Indians All. This unit is the companion to Unit IV in Book III, and should show life in other states of India - states not included in the preceding book - through the activities of a modern Indian child. The activities may be pure enjoyment, but there should also be some delineation of constructive roles which children can and do play today in family and community life. The newspaper is a good source of some of the story possibilities for this unit - the boys who were awarded medals for having saved lives, for example. The newspaper stories centre on the awards, but the book stories should centre upon the deeds which led to them.

Unit VI - Biography of Modern India. This unit is to introduce to children some of the great men of modern India - Gandhi, Nehru, Tagore, Radhakrishnan: or, perhaps, a poet, a musician, an engineer, a philosopher, a scientist. It would be good to have a woman represented. This unit should say to our children, "The greatness of India continues. These people, like you, were children of India, who worked for India and the world." Children should learn that it is patriotic to make the most of one's abilities, that contributions in many fields create the greatness of a country. The farmer who grows a better crop and influences other farmers to do likewise makes such a contribution.

Unit VII - Humour. This unit may depart from the animal focus of the previous books, to deal with people and situations. Each story may represent a different type of humour, such as the humour of exaggeration, of understatement, of the absurd, of the inappropriate, of the unexpected but plausible. The manual will direct the teacher to draw attention to the different ways in which the stories are amusing and encourage children to make up stories of their own along the same lines of humour.

A long story will deal with modern India.

Book V (The World)

As Book IV focussed on India, Book V reaches out to the World as it affects India.*

Unit I - They Fought Disease. This is a unit of science biography, telling the story of the fights against such scourges as small pox, tuberculosis, polio, and cancer. Machines and types of surgery which correct defects of the heart are another possibility.

Unit II - Great Animal Stories. These will be stories from around the world which tell of the bravery of animals - true stories. Even though the stories will be drawn mainly from outside India, a tiger story from Jim Corbett's store of tales should not be out of order. Animals to consider include horses and dogs, about which a wealth of world literature is available.

Unit III - Frontiers of the World. This unit presents some of the latest ideas in aviation, in moon probe, in atomic energy, in harnessing the sun's energy as a source of fuel, in ways of preserving food, in conservation of natural resources, in predicting weather, in health. A humorous poem might be added - what if there were no lever, no wheel, no fuel. (This sounds tragic but it could be dealt with humorously.) Simple explanations of some of the principles at work in these endeavours can be given, especially if children are featured in the stories.

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* A useful bibliography of world literature in English is Best Books for Children, an annual compilation available from R. R. Bowker Company, 62 W. 45th Street, New York 36, New York.

Unit IV - Present Day Children the World Over. This unit presents stories of children in other countries, particularly true stories or realistic stories of constructive roles children play. An attempt should be made to have representation from every continent.

Unit V - Classics the World Over - Previous books in the series have stressed Indian literature. The present one now reaches out to Aesop's Fables, Japanese Children's Favourite Stories (Sakada), East of the Sun and West of the Moon (Asbjornsen), and the like. Or hero stories might be a very good emphasis - the Odyssey, King Arthur, etc.

Unit VI - India's Present Contacts with the World. This is a unit centering on communication and transportation: cable, radio, newspaper, TV, ship, airplane, exchange of scholars - business men - technicians, the United Nations. It must be anticipated that television service will soon be common throughout India, bringing the world into the remotest village. How these communications are made possible through world-wide cooperation - relay stations and Telstar - can be useful here. What is the spoken language through which technicians communicate in these world-wide communication systems? What is the written form? At one time a dock strike in one country would not have affected India. What does it mean today?

Unit VII - Fantasy. There are many stories in world literature dealing with fantasy, beguiling or humorous. This unit is proposed for the excitement of the imagination. Science fiction would have a place here as a prophetic form of fantasy. In fact, an interesting study would be old stories of magic which have become true science - people now DO fly - the voices of people miles away can be heard with or without wires between. A possibility is the pairing of stories in the previous unit (Unit VI) with these fantasies, and having the children note which story in Unit VI corresponds to that in Unit VII.

A book-length story concludes Book V.

These, then, are the plans for the Hindi series as the Reading Project staff now conceives them. Changes will doubtless occur as the work progresses!

STORIES FOR A LANGUAGE SERIES

Many authors have written books which happen to please children. Many more are now writing for children, with the intention of pleasing them. When stories are written for a language series, they must not only please children but offer quality in content and form.

In India as well as in other countries of the world, many authors now rewrite the old literature. Writing is not easy, but writing a story which has already been told and written is easier than thinking of a story to write - a story that has not been told or written before. Writing a new story is hard because it demands observation. An author writing an old story may simply recall and put into his own words. He may do it beautifully and deserve much praise, but the task has required less of him. He may not have to look about him at all. He can sit in his study and pour out the words at will.

Beyond observation, a story demands a plot. An author must be able to observe life and see the possibilities of plot in it, seize a scrap of plot and imagine an entire plot.

The burden of this paper is to define the task of the author and analyze it so that those who wish to write new stories for children may have some guidance. A language series which contains only classic stories fills the mind of the child with the past. Some stories must also contain thoughts of the present and future.

A dictionary defines a story as a narrative, a narrative as a story! Then perhaps it says that it presents a succession of happenings, and that it involves plot, setting, and characterization.

A story, then, presents a succession of happenings, ordinarily in the natural sequence of their occurrence in time. It is true that an author may use a device popularly called "the flashback"; that is, he may start the story at a certain point in time, then temporarily revert to a still earlier time, then leap to the certain point and proceed beyond it.

Natural order:	A child wants to make a swing.	He finds a rope.	He finds a board.	He makes the swing.
Flashback order:	A child finds a rope and is delighted because	he had been wishing to make a swing.	Then he finds a board.	He makes the swing.

Or the author may start at a certain point in time and have characters discuss what has previously happened. In this way the reader is not bodily removed from a present time to a previous time but remains in the present time and is reminded of a previous time by the conversation of the characters. (A favorite device of Shakespeare).

The characteristic movement of a story, however, is forward in time, from an earlier point in time. In that sense, the following does not qualify as a story:

> An old man was planting mango trees; many, many mango trees.
> A passerby said, "Why do you plant so many mango trees? You can't possibly eat so many mangoes".

> The old man replied, "It is true that I cannot eat so many mangoes. I may not even live to see the fruit of these trees. I plant them for others."

This is not a story, but an incident illustrative of the dedication of an individual to the good of others. There are many versions of this theme. For example, a man crosses a stream with great difficulty; then stops to build a bridge. "Why do you build a bridge?" asks someone. "Because," says the man who represents dedication to the welfare of his fellow man, "someone less strong than I may come after me and be swept away by the torrent." Or a man is driving his car down the road and successfully passes over a great rock; but he stops and removes the rock. Why? Because someone coming in the dark may be injured. You can think of other examples. They are incidents, points in time. They start with a description of the situation and action and character, and end with an explanation of the action - the reason for it.

If a story is to be made of an incident - and this is the way many authors get their ideas for stories - seeing an incident and conjecturing about it -, it must be extended in time either forward or backward. To extend it backward - that is, to start it at an earlier point in time, - the author may say to himself, "Why did the old man think it important to do something for others? Where did he get the seeds? What thoughts and efforts were required to formulate and achieve his goal?" The author may plan his story entirely before attempting to write, or he may feel his way along as he writes, depending on the way he thinks he works better.

> Once there was a boy named Gopal, whose family was very poor. Its only possession was a beautiful mango tree. When the tree bore, everyone in the family was happy - that is, everyone but Gopal. For the beautiful mangoes, the juicy, sweet mangoes would have to be sold. With the money the family could then buy rice and lentils and peppers.
>
> Gopal was tired of rice, lentils, and peppers when he saw the beautiful mangoes. He wanted a mango all to himself.
>
> "When I grow up, "he said to himself, "I shall eat lots of mangoes. I shall grow many mangoes and eat them all myself."

This is the start of a story that may have its finish in the unselfish act of the old man, the Gopal of years later. The story line is from poverty to plenty, from wish to fruition. But there is more to the story than this. Something must happen to change the child's selfish wish to his generous wish for others. What will it be? Will it be simply that Gopal gets more mangoes than he can use, and finds satisfaction in supplying them to others? Will it be that Gopal finds that he has more mangoes than friends? Will it be that he finds it hard to enjoy something when he sees the need of others, and, by that need, is reminded of his earlier want? Does a guru (teacher) help him to see that the reason he is not happy with his surfeit of mangoes is that self-love is spiritual emptiness? Can this be expressed in a way that children can understand?

If, on the other hand, the author decides to make the incident the starting point rather than the end of his story (It could, of course, be the middle or any other point along the way, as well.), he has to think what he can do to give a satisfactory ending to a story starting with this initial act. The setting he chooses will make a great deal of difference. If the area already has mango trees in it, the contribution of the old man is minimized. So probably it should be an area which is favourable to the fruit but which has not been planted with it before.

Another way to give the mangoes importance is to imagine the failure of other crops or sources of income in the community, or to imagine a caravan on a very important mission, which arrives at the site without food or water, and survives by means of the fruit.

Or the passerby, ennobled by the example of the old man, remains to care for the trees, and sees them through many obstacles: drought, pestilence, fire, etc., until the old man's mission has been fulfilled.

By way of this illustration, several points of importance have been made. The story should have some value beyond the mere virtue of being a story. This does not mean that it must be serious, realistic, and heavily weighted with morality. It does mean that a story in a reader series, being a subject of study, can have considerable influence on the child who reads and discusses it; and that, since this is the case, it should desirably do something for his attitude toward and knowledge of the world. The author should be very much concerned with the kinds of conclusion about life that the child may draw from the story. The story may have moral value. It may have value in its presentation of a social principle (By cooperating we can do things faster and with less individual effort.), a scientific principle (The heaviest objects seek the lowest level.), a health principle (Germs may be carried through the air in dust particles.), a mathematical principle (Half of zero is still zero.)

Suppose the author wishes to write a story which will affect the behaviour of people toward animals. Perhaps he has observed that some drivers beat their animals unmercifully, but perhaps also he has seen a few drivers who seem to value the services of the animals. He wants to tell a story that will make children feel that animals that work with and for man are worth the care and kindness which people can show them. So he starts out in search of a story to go with his purpose.

On different occasions he sees a bullock with golden horns, a bullock with a blanket over its back, a man asleep on a cart pulled by a bullock, a bullock slowly swerving out of the way of an obstruction in the road, bicycles weaving around bullock carts, bullock carts loaded with sugar cane or dung or carrots or cabbages, bullock carts loaded with sacks of onions or potatoes or rice or wheat, bullocks before dawn pulling loads to market -- their eyes shining in the dark, women cutting grass with knives, women carrying great piles of grass on their heads, men feeding grass to their bullocks. All these impressions the author has gathered as he has observed the life around him, and as he still is possessed of the desire to write something that will make children respect the bullock as he does.

He would like to show the kindness of a man and woman to the bullock, and the return which they get for their kindness - the steady conveyance of their produce to market and of their purchases back to their home, the seemingly limitless show of strength at the challenge of great loads, the dependable transport even when the driver sleeps, the effortless avoidance of disasters.

Ha! The author thinks he has the idea - he will have the driver, exhausted after the day at the market, go to sleep in the cart, and the bullock pull him through a number of problem situations on the road, and get him home safely. Perhaps there will be a little joke for the author and reader at the end of the story:

the wife will ask how the trip went, and the driver will say, "Nothing unusual." Only the bullock knows.

The problem situations could be a bicycle shooting out of a side road, a child playing in the road. But there should be a build-up from minor problems to a final great one. Suppose there is a bridge, a wooden bridge, and some boards have broken. One conveyance has fallen through, or perhaps travellers are being advised to turn back, but the bullock continues. The people shout, but the driver is so exhausted that he does not hear the shouts above the rumble of the cart which has rocked him to sleep. And the bullock goes on. He starts over the bridge. People hold their breath and hide their eyes. And slowly the great animal veers in his direction, just missing the hole in the bridge.

To build the bullock's importance the author decides that the family should be poor and heavily dependent upon the transport of the produce to market.

Ordinarily children seem to enjoy stories about children their own age. In this case, however, the author thinks children's interest in live things (such as a bullock) and action (such as the crises on the trip home) may compensate for the lack of a child in the story. Besides, if the rider must be asleep to heighten the importance of the bullock, the rider cannot be much of a hero with which to identify. The bullock is the hero, and the child's attention, hopes, anxieties, must be pinned on him.

The setting should assist the story - be appropriate to it. If the setting is on the highway, a number of hazards can be encountered. All of the hazards should be true to whatever the setting is. Certainly the roads to market in many places in India are cluttered with people and conveyances, many with little regard for what goes on around them. Certainly there are bridges the worse for wear, which sooner or later are hazardous.

The story should tell about change or achievement. In the proposed story of the bullock, the bullock achieves the safe conduct of his master, the master gets home safely, the care at the first of the story is rewarded by service throughout the rest of it. In the first of the story the man and his wife are the givers; in the rest of the story they are the takers. A change thus takes place in the change of roles: givers to takers, and taker to giver.

The ending of the story must give satisfaction. If the story starts with the investment of the man and his wife in the bullock, and then introduces an element of danger and a solution dependent on the action of the bullock, the satisfaction comes in the justification for the investment - the successful passage through dangers of greater and greater magnitude - until the end of the journey is reached.

The ending will not give complete satisfaction if something is "trumped up" at the end. For example, if at the end a man runs out and pulls the bullock out of the way of the hole in the bridge, the situation is saved but the bullock is no longer the hero. Or, if the man's wife shows up and says, "I heard about this hole and came to make sure you'd get across," the bullock is denied his crowning achievement. The ending must not only serve the purpose of solving the problem situation but must be true to the author's purpose in writing the story at all, if the story is to give satisfaction.

Kinds of Plot

Young children tend to read for plot. If little happens in a story, they tend to reject it in favour of a more eventful one. Good literary values go unnoticed. One of the reasons for giving children good stories is to help them to become sensitive to those qualities which distinguish well-written materials.

Even plots can be pretty poor ones but still acceptable to children who have not been educated to sense the virtues of a good plot. They value action, suspense, surprise, and obvious humour, whether or not the action is needed or warranted, the suspense important to the overall structure, the surprise justified though surprising, and the humor appropriate to the tone of the entire story.

There seems to be only one thing children will not tolerate in plot, and that is confusion or clutter. Too much, too long, too complicated a story loses its young readers.

Here are some of the problems which characterize plots for children:

	(Steps in Solution)	(Satisfactory Ending)
Being puzzled by a mystery	Assembling clues	Finding solution
Wanting something built	Building it	Using, enjoying it
Losing something	Hunting for it	Finding it
Needing something	Working for it	Obtaining it
Being uninterested	Becoming involved	Finding an interest
Being ignorant	Helping in a task	Learning how to do it
Being disliked	Making friends	Being liked
Being alone	Seeking companionship	Finding companionship
Having a bad trait	Meeting reasons for change	Changing trait
Being helpless	Learning self-help	Gaining independence
Facing choices	Hunting for right choice	Finding right choice
Feeling inadequate	Facing a challenge	Becoming adequate
Being unaccepted for one reason	Proving good trait	Being accepted for good trait
Suffering from a bad situation	Working within the situation	Making the best of it
Wanting something	Working, hopelessly	Getting it in surprising way
Thinking something is desirable	Working for it	Finding greater reward than what was thought desirable

Having a handicap	Competing against odds	Winning
Wishing for something	Inventing a substitute	Enjoying the pretense
Being selfish	Having to share	Learning the rewards of sharing
Having a job to do	Making foolish decisions (such as trusting to incompetent help)	Reaping the whirlwind
Being always wrong	Still trying	Finally by chance being right
Desiring complete independence	Gaining it briefly	Realizing why adults warn against it
Being worried	Acting on the worries	Finding nothing to fear
Wanting a response	Working for response	Finally getting it
Having things in order	Doing several foolish things	Achieving disorder
Needing to help	Helping	Being rewarded
Encountering disaster	Working to rectify it	Achieving the end
Having a chance to be kind	Being kind	Getting kindness in return
Wondering why something is so	Seeking the answer	Finding the answer

Notice that few of these start with something considered pleasant or easy. Most of them are challenges to character or ingenuity. The ideas of life which these plots can promote are the following:

There are usually good reasons for the things that happen.

If you want something done, do it yourself.

If you hunt systematically, you may hope for success in finding.

If you want to obtain something, work for it.

If you will really study something, you will find it interesting.

If you don't know how to do something, help someone who does know.

The way to have a friend is to be a friend.

If you look for companionship, you will find it.

Your actions improve when your thinking improves.

You gain independence by proving yourself worthy of it.

If you would find the best way, look for it.

You gain skills by trying.

Put your best foot forward.

A place may not be ideal, but you can make it livable.

Sometimes by working indirectly, you can gain your goal.

Another place is not necessarily a better place.

A handicap is a poor reason to accept defeat without a try.

Sometimes imagining is better than the real thing, especially if you can't have it.

Give half of what you have and gain a whole friend.

Poor help can only make matters worse

If you keep trying, you may even win by accident!

Parents and teachers have good reasons for the limitations they set.

Fear is often groundless and often magnifies a danger.

Think of the possible consequences before you act.

An author in search of a plot might well start with the idea of life he wishes to convey, then find a plot to fit it.

The same plot can be used anywhere in the world, as long as the setting in that area of the world is congenial to it. If the plot requires poverty, that is easy to find. If it requires a bad season, that happens everywhere.

Characterization

Characterization is more demanding of an author than some authors realize. If a story should be convincing, then characterization should be; and it cannot be if the character is shown as being only honest or only ignorant or only anything else. He must have many sides, many characteristics. The author should ask himself how the person's friends would recognize him at a distance, know him by his voice or remarks in a crowd; what they would expect that he would do under certain circumstances. How does he behave with his family? What does he do for them, with them, because of them? What are his preferences? The author must study his invention until, in imagination, it is as real as anything he has actually seen. Then he can write about it. When the character expresses ideas and feelings, the author must enter the person and speak as that person would speak, feel as he would feel. It is easy to see that the examples given previously need to be rewritten to meet this requirement.

Characters, like setting and like plot, can be delineated in several ways. The author may describe them. Other characters may express opinions about them. Other characters may tell what they do. A character himself may speak, explaining himself or exemplifying a trait by what he says. Or he may act, suggesting by behavior the kind of person he is or the feelings he has. As children love to read conversation, the author should consider this preference as he writes.

Setting

It has been said that the setting should be suitable to the plot. It should also be to the characterization. Characters would not feel the problems with which stories start unless the settings produced them. A setting produces loneliness, fear, desire, timidity, with, of course, the cooperation of the person who feels these things. At the same time it may be producing companionship, courage, bravado, and satisfaction for someone else. But the author should make sure that the setting is right for the individual and the feelings he is to portray.

The author of the bullock story may truly wish to have the wife go out each day with a knife and a cone-shaped basket, because he has enjoyed seeing women do this in the mountain country of northern India. But if he has his bullock cart going along a level road to and from market, and the road is rather busy, this is not mountain country. The wife must use her knife and then bind the grasses and carry them on her head, like women of the plains.

Economy and Suggestion

There is an economy in good stories for children, what one might call a "tightness" in the writing. Everything in it "counts". Nothing is superfluous. Unlike the epics told when the culture was new, the plot of a modern story should not be loaded with unessential incidents, unessential descriptions, unessential conversations, extraneous sequences. If something is said about the character, it is said to reveal him sufficiently to make him seem real and plausible. If an incident occurs, it is either essential to the sequence of events in the plot or it reveals something which is necessary to reveal about the setting or the character. Furthermore, this economy is stretched to the point of suggestion. The author may say the wind blew the dust and the summer sun blazed in a cloudless sky, letting the reader guess the heat, the soil, the thirst that would accompany these two acts. The author may say the boy hung his head, letting the reader infer his shame, or whatever it was that the situation would have provoked. An author who reconsiders his finished product may do a good deal of worthwhile cutting, increasing the clarity and force of his composition.

Information

Indirectly the setting of a story should inform the child beyond the prime message of the story. The plot is laid, actually overlaid, upon a setting which contains plots of its own. The child's concern may be the wish to have or to do a certain thing. But, in the background is his father's concern for making a living as, perhaps, a weaver. As the child's story progresses, the father is going through a sequence of weaving tasks. Perhaps the child is involved in some of these. The reader, then, becomes informed about weaving of a certain kind and in a certain locality, while he also reads of the child's activities. Obviously, the author must have prepared himself by learning the steps in the weaving art, where in the home it may be done, how the family is involved, what the concerns of children in such an environment typically are - their play, their troubles, how they help in the home.

Desirably the author informs himself by visits to such homes, by asking questions about processes, by observing the children, by interviewing the children if possible, by listening to the way they say things and what they say to

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each other - developing an ear for authentic conversation. How does personality speak through behaviour and posture and expression? How would the author feel if he were a child in this situation?

To a great extent the author leans upon his own memory of childhood experiences and feelings. But because he is not writing about himself and his own background, he has to transplant this awareness into new situations. At the same time he has to realize that a child in this environment may not have formed the same attitudes that he formed as a child. To reconstruct this child in literature he must erase some of his own feelings and memories, and construct others from what he sees and feels and understands in the different setting.

Even apart from the problem of a controlled vocabulary, the work of writing stories for a language series demands careful scholarship, insight, empathy, and imagination, as well as skill with words.

THE MEANING DIMENSIONS OF A WORD

We live in a universe of atoms, which, in turn, contain universes of their own; a universe of action and interaction, of multiple causes and multiple effects, a universe in which everything is on its way to be sensed and understood in its relationships to everything else. How naive of us ever to have thought that a word, even though of our invention, can have one ever-certain meaning, a permanence that is truth; that, to test its grasp we have only to measure one facet: "A dog is an animal?/a fruit?/ a vegetable?/a mineral?" - that, to teach its function, we have only to teach a child to sound it out.

David H. Russell in his Dimensions of Children's Meaning Vocabularies in Grades 4 Through 12 (Berkeley: University of California Press, 1954) showed several ways of testing the meaning dimensions of a word, and reported the varied success of children in tests of these dimensions. It followed that teachers should be aware of these dimensions in their teaching; textbook authors, in their writing. Russell would have been the last to say that he had expressed all the possible dimensions. It remains for teachers and textbook authors to identify them.

We too, must have our modesty. That we have invented a word and have used it is no proof that we know all we have started and what has transpired in its use. We have simply used powers we still understand very little, in invention and observation. And in trying to pin down the meaning, we tend to over simplify, perhaps even distort, and certainly omit, some of its facets.

What does the lexicographer have to say about mango? One dictionary - a simplified pocket edition - says, "From Tamil - an Indian fruit and tree". So we have here its linguistic origin in South India, its location in India, its classification as a fruit and also as a tree which bears the fruit. In a collegiate dictionary the lexicographer is more generous in ideas, time and space: he says that the word existed in the languages of Portuguese, Malay, and Tamil - thus spreading its geographical area, even if one recognizes that the Portuguese people had Asian outposts. He continues, "An oblong, yellowish-red tropical fruit, with a thick rind, a fibrous, agreeably subacid juicy pulp, and a hard stone; also the tree of the sumac family, which bears this fruit." From this description we know something of shape, colour, structure, taste, and texture of the fruit, and the classification of mango as fruit and tree, as well as the family of trees to which the tree belongs.

We call this description, loosely, a definition. Yet a definition may be composed of quite different ideas and still be a definition; or may be composed of fewer or more ideas and still be a definition. We could say that a mango is a fragrant, sweet, juicy fruit, round and tapering in shape and varying in pulp from smooth to fibrous. Or we could speak of it comparatively, saying that the mango is sweeter, more fibrous than the peach, and has a tendency to cling to its large central stone and slip its skin. Even then, we have not exhausted the possibilities of the mango.

The reader may be thinking, "Who cares?" The mango illustration (here mango, by the way, is an adjective and not a noun) is used simply as an example of a many-faceted word which is short-changed not only in dictionaries but in speakers' and teachers' attitudes. The following are some of the dimensions which mango has in the English language. In another language it might have more or fewer dimensions, for the meaning dimensions of a word depend upon the words the language contains with which to express characteristics and relationships.

Whole-Part Relationships: *Tree* or *pudding* or *chutney* is the whole of which *mango* is a part. Mango is a whole of which *pulp* and *seed* and *skin* are parts.

General Coordinate-Subordinate Relationships: *Fruit* is a general term under which *mango* may be classified. *Banana* is one of the many coordinates with *mango* under the general classification, *fruit*. Subordinate to *mango* are the varieties of *mango*, such as the *Dusehri* and *Langra*.

Cause and Effect Relationships: Many causes might be named for the production of the fruit, but suffice it here to say that a blossom must be pollinated and nourished to produce the effect: *mango*. The *mango*, in turn, is a cause. It has the effect of nourishment when eaten; but, for some persons who are allergic to it, it produces an allergic effect, such as skin rash. For the observer of the fruit, it gives the effect of beauty and pleasure unless he remembers his allergy.

Comparison and Contrast Relationships: A mango can be compared with another fruit, and an analogy may be derived: *mango* is to *mango tree* as *banana* is to *banana tree*. But it can be compared with things other than fruit: its stylized shape is that of a comma; its skin feels like soft, smooth leather; its colour may be yellow or red or a blending of one into the other, like the stages of a sunset.

It may be contrasted with another fruit: it is soft rather than crisp like the apple, fibrous rather than granular like the pear. But it can be contrasted with other things; unlike many kinds of food, most varieties of it deteriorate too rapidly to be successfully shipped over great distances.

Time Relationships: The mango tree does not bear mangoes until it has reached a certain age. One might speak of the time from seed to mango. There is also the time from blossom to fruit, and the time of year for blossom or fruit. An additional facet of time-relationship is the first historical record of the mango, and successive developments in its use, variety and location.

Conditions: A favourable environment for the mango includes certain conditions of soil, climate, altitude, moisture, and cultivation. Water, chemicals, and sunlight determine its production - are its food, so to speak; its shelter, a tree. Its enemies are frost, drought, excessive rain, overcast conditions, and disease. Man's competitors for it are birds and insects as well as other tree-climbers.

Behaviours: One could argue the appropriateness of the application of the term *behaviour* to *mango*. The tree may release it, but it drops; it drips; it can poison; its seed can sprout.

Qualities: The qualities of a mango are on a sliding scale, depending upon the particular variety or individual fruit. *Mango* comes in certain *number*. (on the tree, in the crate, pudding to serve six people, etc.) In juice or pulp or area of skin it comes in certain *amount*. Its *texture* is from smooth to fibrous. Its *flavour* ranges from apricot to kerosene. It varies in degrees of *moisture*, or juiciness. In *colour* it varies from yellow to red. In *sweetness*, as fruits go, it is very sweet, but varies within a range, even so. In *acidity* it rates "sub-acid". In *solidity* it is firm. In *size* it compares with peaches and pears. In *shape* it is round and tapered. In *odour* it is fragrant. If it has a *sound*, perhaps it is the dull thud of dropping from the tree or the sound of being eaten.

Uses: Its uses depend upon the user. Nature had perhaps the primary intention of propagation. Birds, insects, and climbing animals, as well as some who wait patiently on the ground, use it for food. Man eats it raw or cooked, alone or in other foods. He also has used it for decoration, as in a bowl of fruit to enhance a table display, or its shape as in a printed or woven cloth, or its colour imitated in a dye. It is an edible home for insects, and a good hunting ground for enemies of insects.

Synonymous Words: none except fruit, which is really a classification.

Antonymous Words: none

Homonymous Words: none

Derivation: Portuguese - manga, Malaya - Manga, Tamil - Manga

Derivatives: Mangoes or mangos (plural)

Multiple Meanings: Mango - the fruit, mango - the tree, mango - the colour

mango - the design

"Please give me a mango".

"The Mango needs water and sunlight".

"Of all colours, I like mango best."

"Please get me the mango plate." - which may mean

the plate with mangoes in it

the plate with a design of mangoes on it

the plate the shape of a mango.

Definition: As indicated earlier, this may take different forms. We should be forgiven if we have left out the habits of a mango!

The meanings and associations which have been explored here are those which a teacher or textbook author, trying to assemble all that he can think of about a mango, has been able to identify. A person interested in the cultivation of the fruit would have even more to say. A gourmet wishing to express subtle distinctions in the taste and uses of different varieties of the fruit could add to that.

The main point to be derived from this exercise with mango is that a teacher exposing children to the idea of mango, helping them explore meanings and relationships, and possibly testing the results of this teaching, should realise the possibilities of his task, and, while he will not go to the lengths to which this exposition has gone, he should not be satisfied to stop with "A mango is a fruit". A further point is that the development of word meanings should, over a period of time, include all the facets of meaning explored here, even though one word may not have complete consideration as in the case of mango.

Beyond the task of making the children aware of the meanings within a word and associated with a word, is the task of teaching children to think about one relationship or facet of meaning at a time, and to study that in several words. For example, the teacher may say, "Here are some words you know. I shall write a word, like coat, and you are to find a word that tells about part of a coat, like button or cloth or seam." In this case the teacher is dealing with whole-part relationships, supplying the whole (coat) and asking for the identification of a part (button, cloth, seam).

If the teacher does this repeatedly, the children will become expert in identifying a part when given a whole, but not in identifying a whole when given a part, or in identifying and matching wholes and parts without any prompting by the teacher. Therefore, the teacher must also sometimes say, "I shall name a part, and you are to find the whole", or, "Here is a mixture of words. Some are the names of parts and others are the names of the wholes of which these are the parts. See how many wholes you can match with parts. If you do this properly, you will have no parts or wholes unmatched." Needless to say, the teacher must make sure that each word is suitable to pair with only one other word in this meaning relationship.

As soon as the Primer vocabulary was established by the Reading Project Team in India, a chart was made, each word listed on the left side, and dimensions of meaning recorded across the page. Then, when word meaning exercises were to be designed, it was immediately clear which words could be used in, for example, a whole-part relationship. Also, as the words listed to the right of the Primer words ultimately came into the vocabulary of later books, it was clear which earlier words could be used in exercises with the new words. The chart also served as a check-sheet of the kinds of word relationship which should be covered in the exercises in the book, workbook, and manual.

THOUGHT PATTERNS IN EXPOSITORY WRITING

What does an author do when he writes? He puts down ideas. Where does he get them? He puts these ideas in a certain order. Why? He gives you the world as it has come through his senses and as it has been processed by his brain, through the medium of words - words which, in turn, the culture has given him, by which it has both enlarged and limited his awareness of environment. By the time you see the result, as a reader, it is a pretty special product, expressed in no other words, organized in no other way, and offering no more or no less than what the author wished to give. (A good reason, right there, for reading more than one author in more than one culture, on any one subject!)

Do you remember a time when you were a child, that an adult took your hand and said, "Let's take a walk"? Do you remember what you said as soon as you could speak? "Where are we going?" You were full of questions. "Where?" "How?" "Why?" The good reader, as he agrees to go along with the author, asks such questions, anticipates a turn at the next corner, a branching of roads and a decision. He sees things the author misses in his logic or in his selection of ideas to present; he learns the preferences of the author by the length of time he dwells on a topic; he resents, as he once did the pull away from the toy-shop window, being hurried along from a topic in which he has special interest; and, in the end, he agrees or disagrees with what the author has to say about the journey, but even here, he may have quite individual reasons for doing so.

Think what an author takes on when he writes an article: Every person who reads his article gets something slightly or greatly different from it, like the child invited for a walk. The critics write reviews. The author gnashes his teeth: "They miss my POINT," he cries. "Don't they know what I mean when I say...? Didn't they see what I said in the fourth paragraph?"

Sometimes the author is right: they missed his point. Sometimes the critics are right: he doesn't express himself well; he doesn't organize clearly; he makes it hard for the reader.

The ideal would be an author who knew how to make himself clear, and a reader who knew how to read the author's signals. To reach that ideal, both author and reader need to understand the ideas and thought patterns with which they both have to work. Where do these ideas come from? How are these thought patterns developed?

Schema of Thought Patterns

Sensory Impressions

of

Objects and Living Organisms

in patterns of

Events and Situations

with

Thought and Feeling Predispositions and Reactions

and

Awareness of

Whole-Part Relationships
Cause and Effect Relationships
Sequential Relationships
Comparison and Contrast Relationships
Co-ordinate-Subordinate Relationships

Leading to the Development of

Theories
Laws & Principles
Generalizations
Summarization
Definition
Classification
Procedures

Supported by

Examples
Elaboration
Application

The Schema above gives you some idea of what goes on in a human being as the world buffets him. Through his eyes, ears, nose, and touch, he receives sensory impressions of the animate and inanimate objects in his environment. These objects may appear in a pattern of events or in certain situations (framed, as it were, in time or place). With regard to these objects, events and situations, the brain does not serve as a filing cabinet. Certain attitudes and feelings which the human being has developed from previous experience or which are immediately formed in response to pleasant or unpleasant sensations influence the reception. Strong feeling against something, for example, may cause a person to ignore it or, on the other hand, to be aware of nothing but it in a situation. Awareness, then, is more than a faithful copy of the world in the person's mind. Parts of existence are magnified or distorted by the person's feelings and thoughts - to the point of blotting out or minimizing others.

Now, we might say, the brain is left with all sizes of observations, some magnified, some distorted, some reduced, some rubbed out. What happens? Normally, unless the person has been educated to be a rubber stamp, a spewer of the spewed, he becomes aware of certain relationships among these observations. He "turns things over" in his brain:

Whole-part Relationships: A frog is not just a frog. The leg is part of it.

Cause and Effect Relationships: The rain did not come from nothingness. There were clouds in the sky. The river did not rise by magic. It was filled with rain from all over the countryside.

Sequential Relationships: Something happened at ten o'clock, something else at eleven. In the life process there is first the egg, then the tadpole, then the frog. The towns that you pass on the road from Delhi to Agra are first - then - then - .

Comparison and Contrast Relationships: These two cars are both Ambassadors (comparison). But (contrast) one is white and one is gray. The bird has a nest but I have a house.

Coordinate-Subordinate Relationships: My father and Madan's father both live in this village, but the village council runs it. These two wheels turn on this axle (independent of each other; dependent on the axle). They are held on by pins on either end (dependent on pins). Of dog and cat, the bark belongs only to the dog, the purr only to the cat. The dog is not a cat. The cat is not a dog.

The awareness of these various kinds of relationship among the observations can lead to certain kinds of products:

Theories: Quality is better than quantity. The universe is expanding.

Laws and Principles: Everything has a cause. Nothing is put into motion without the application of some force.

Generalizations: (These pertain to the immediate data, whereas theories, laws and principles are the result of many such data and generalizations.) Rain helps my garden.

Summarization: These plants need good soil, moisture, and sunlight.

Definition: A nest is a home of a bird.

Classification: The waters of this river are used for irrigation and for the production of electricity. (Uses of water: (a) irrigation (b) electricity.)

Man and the whale are both mammals. (Mammals: (a) man (b) whale).

Procedures: The first step in making this cake is to assemble the ingredients.... Next.....(First, Second, Third, etc.)

Once these products of the mind are established, the mind continues to find utility in them, the need to defend them, and evidence of their validity. In exposition of them to others, the writer makes use of examples (just as I have done immediately above), elaborates them (just as I have done in presenting the material following the schema), and applies them when necessary or desirable.

Examples: As an example of the principle that "Everything has a cause", the writer may say that a bird flies away when you approach because it fears what you may do.

As an example of the generalization, "Rain helps my garden," the writer may say that his beans grew an inch overnight after a good rain storm.

Elaboration: To elaborate on the idea that plants need good soil, the writer may suggest the kinds of soil he considers good, the nutrients which should be in the soil, for certain kinds of plants.

To elaborate the idea of a nest's being the home of a bird, the writer may say that there the bird lays its eggs, feeds its young, and keeps them until they are ready for an independent life; there the bird returns at night or on a stormy day.

To elaborate the first step in making the cake, the writer will list the ingredients to be assembled and their amounts, with perhaps even specific recommendations of brand names.

Application: If the writer applies the principle that "Everything has a cause," to the presence of flies in the screened house, he will have the reader consider how the flies could have got in, what had been open or contaminated, who had been responsible, how it might be prevented.

To follow the thoughts of a writer, then, is to follow the possibility of his doing one of fourteen or more different things with the data he has at his disposal. (Because my brain is not the ultimate brain in the world, I am supposing that my schema is not a perfect statement. You may improve upon it.) Unfortunately, he does not say at every turn, "Now I'm stating a principle.....Now I'm expressing my feelings about it....Now I'm presenting an analogous situation, using my powers of comparison...", and so forth. The reader has to sense these directions.

"Why should he sense them?" you ask. "Why doesn't he just read along, and follow as though led with a rope around his neck?" Well, for one thing he would accept without question what the author had said. He would not see how the author had arrived at his conclusion. He would not know what was important to remember from the material he had read. In short, he would read the way most adults today have read all their lives, to the world's sorrow.

"Oh," say you, "but I belong to the new generation. I have learned to read for the main idea of every paragraph." That is very nice, and you and your teachers should be very proud. However, the main idea of a paragraph is not always the important thing to remember. The reporter writes, "Country X has cut off diplomatic relations with Country Y". That is his main idea. Is that what you should remember about that paragraph? Does it do you any good to know only that? The important news is buried further on: the reason for the action. Only if you know the reason can you hope to improve a rapidly deteriorating situation. Perhaps arbitration can prevent armed conflict, but not unless you exhume the reason buried in that paragraph.

Again, suppose you read, "There are seven danger signals of cancer." Is that enough to do you any good? It is the main idea of the paragraph. But the important news is not one summary sentence but seven vital points.

With examples as grim as the threats of war and death, perhaps you are now willing to follow along on my rope! (I have, by the way, made a generalization, "To follow the thoughts of a writer...is to follow the possibility of his doing one of fourteen or more different things....", answered your one question with three flat statements on the effects of docility, and answered your defense with the two examples of its fallacy. "To the world's sorrow" at the end of the second paragraph in this sequence suggests my attitude-thought and feeling reaction - toward the reading behaviour of most adults. If you consider my attitude an insult, you may impetuously reject all that I have said and try to find facts to prove that I am wrong. Added to insult is the fact that I have made three flat statements about the consequences of docility in reading, which I have not supported with facts. If I am not careful, you may even throw the book down and refuse to read further. But at least you are an active thinker as you read!)

To [illegible] a piece of news - an event

> Saturday our class went to Ranikhet. We rode in a big bus. It was very hot on the winding highway and also in Ranikhet. When the bus arrived at Ranikhet at one o'clock, we had four hours to explore. Some went to the temple, some to the shops, but all twenty of us were at the bus when it was time to depart. The way back was cooler but too dark to show the mountains. We chatted and joked in the dark.

The writer is reporting an event, starting with a summary sentence which tells who (our class), when (Saturday), where (to Ranikhet - whence is not stated) and what (went). The next sentence tells how (by bus). The why the reader has to gather by clues (Some went.....some.....chatted and joked) and classify for himself as pleasure, purchases and information. The rest of the paragraph is chronologically organized from departure to return. The reader has to deduce for himself that it was five o'clock when they were to start back, and that it must have been a long ride if the writer's impression was chiefly of darkness.

The writer has given the reader little on which to judge the desirability of such a trip. He reveals his own judgement in the words big, very hot, cooler, and too dark. If the reader likes bus travel, and does not mind being very hot if the compensation is to see temples, to shop, and to chat and joke, he may decide to go to Ranikhet some day himself.

The writer makes the reader infer that the sentences beyond the first are in chronological order, from words like in a bus - on the highway - when arrived - some went - when time to depart - way back.

In planning the paragraph, or at least in thinking it as he wrote, the writer was doing something like this:

when we did what

how we did it

how it felt

how long we stayed

what we did there: (a) some this (b) some that

how it felt and looked coming back

what we did on the way back

The reader catches this plan from the author by several means. First, he must recognize a summary news sentence as different from other kinds of sentences.

If the first sentence or the first few sentences of an article tell when something happened - who did it - perhaps how and why, the reader has a right to expect that he is reading a description of an event. An event has a beginning and an end. Chronological order is a natural expectation (though an author does not always fulfil it). Therefore, the reader has a ready-made plan of attack in his mind(a mind-set) for this kind of material. After he finds out the who, when, where, what, why, and how, he keeps mentally asking, "What next? What next? Then what?" until he has the sequence of happenings.

The brain is as quick as a wink. A great deal goes on in the good reader's mind as he takes what he wants from the author. Luckily, the good reader keeps his thoughts separate from the author's thoughts, and can tell you what the author said and what he, in addition, thought, without getting the two sets of data mixed up. (Many poor readers forget which was which.) With his own purposes in mind, a reader might read the news event like this:

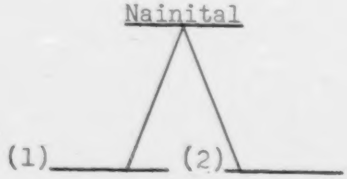
> Saturday our class went to Ranikhet. (Hmmm. Might want to go myself sometime. How was it?) We rode in a big bus. (Might be fun, eh?) It was very hot on the winding highway and also in Ranikhet. (Oh, oh; hot and twisty. I could get sick on that kind of road. What about Ranikhet?) When the bus arrived at Ranikhet at one o'clock, we had four hours to explore. (Wonder how long it took to get there? Long, hot trip, I'll bet; well, what was good about Ranikhet?) Some went to the temple (Not all together - you could do what you wanted..), some to the shops (Fun - tourist traps?) But all twenty of us (Oh, twenty went - lots of room on the bus, but the bus not held down very well over the bumps.) were at the bus when it was time to depart. (Pretty good record. Usually there are stragglers. Maybe there wasn't much to see. Maybe it was too hot to walk around much. Then what?) - The way back was cooler (Ah, that's nice.) but too dark to show the mountains. (What a shame for the people with cameras. So what?) We chatted and joked in the dark. (There was good morale in spite of two disappointments - the heat and the darkness. I'd like to know more about Ranikhet before I decide to go.)

In summary (I am signalling summarization), the active reader of a news article is able to distinguish a summary statement of an event, to look for the answers to the basic questions (who, etc.) in it, to pick up the clues to time change in a chronological account (first..then....after....by evening....etc.) and to remember those events in order. If he has a purpose of his own (such as going to Ranikhet himself some day) or if a teacher has set one for him ("Read this to see what you would want to know in addition to what the author has told you.") he will ask additional questions of the material and react to what he finds with thoughts and feelings of his own.

To classify (diagram)

> The lake town of Nainital has two centres. One is around the south end of the lake and is called Talital. There is a bus station where tourists arrive and depart. The other centre is Malital, at the upper and opposite end of the lake. It contains a sports area and a theatre, and many shops.

The author of this paragraph wanted to make his reader aware of the fact that Nainital had two centres of activity, one at the northern end of the lake and one at the southern, to give the names of each, and to tell something of the character of each. The key to his purpose (classification) lies in the first sentence: *The lake town of Nainital has two centres*. In the reader's mind, as in the author's mind, there should be something like this:

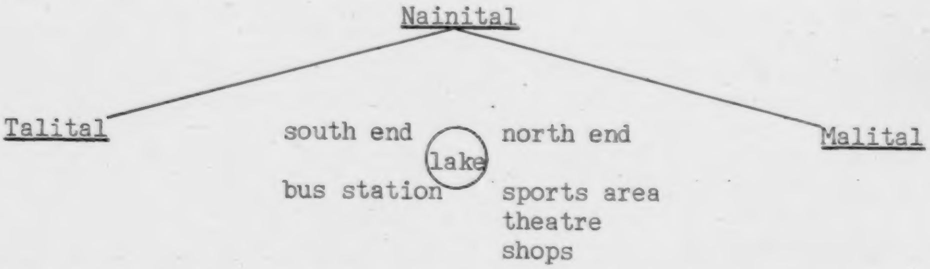


The stimulus of this "town....has....*two* centres" should provoke the question: "What are they?" If you ever studied Latin, you probably remember the beginning of Caesar's *Gallic Wars*: "All Gaul is divided into three parts." The student who laboured through the translation of this sentence should have expected to find and remember the names of the three parts. (Don't ask me now; you are forty years too late!)

As the student reads the paragraph on Nainital, he picks up clues to the organization of the author's ideas:

...One (of the centres) is around the south end of the lake (position) and is called (name of first blank in diagram) Talital (write it down so that you won't forget it). There (in Talital) is a bus station (what's there) where tourists arrive and depart (use.). The other centre (the second of two) is Malital (name to write down in the space in the diagram) at the upper and opposite (*upper* perhaps means the water enters this region of the lake, *opposite* means opposite of the south end, so north) end of the lake. It (Malital) contains (what's there) a sports area (entertainment) and a theatre (entertainment), and many shops (purchasing). (Tourists come in at one end and spend most of their time at the other, probably).

The diagram, filled out in the reader's mind or notebook, should look something like this:



He should be able to answer such questions as: Where is Nainital situated? What are the names of the centres? Where are these centres? What is in each centre? From the sheer bones of his diagram he can easily produce these answers. He can do it because he has visualized or written down the diagram the author has dictated, and because he has been able to profit by the signal meaning of words such as *two*, *one*, *called*, *there*, *other*, *opposite*, *contains* as presented in this context. And, of course, the word *south* is unmistakably a word indicating the position of the one centre.

Beyond these minimal observations, the reader might be required to answer questions which require him to see cause and effect (Why do tourists come to Nainital?), to draw conclusions (if you were a tourist, which end of the lake would be more interesting to you, and why), to infer (By what means of transportation do some people come to Nainital? More than a few people? Why do you think so?), to interpret (What two meanings might the word upper have in this context? Which do you think is intended?), to project (What else do you think might be at the south end of the lake, and why do you think so?)

To present a sequence (series of steps)

> Going from the bus station to Birla School is not so simple as one might think. First, many men at the station vie with each other for your baggage. When that is finally settled, and you have selected your coolies, you still have to decide how you, yourself, will go: on foot, on horseback, or by dandi. Suppose you decide to go by dandi. You will have to select your men who will carry the dandi, and make clear to them the destination and the fee. Then they start with you up winding trails. They make two or three stops on the way, to catch their breath. After an hour of riding, you finally come to the top of the hill and Birla school.

The first sentence in this paragraph sets the problem (from bus station to Birla School) and states an opinion (not so simple as one might think). The reader interprets this as meaning that it is in some degree a complicated business, going from the bus station to the school.

The first word in the next sentence (First) signals the author's intention of giving a series of steps in the process of getting from the one place to the other, and the reader sets his mind for a series of steps, each signaled (First....When....Then....two or three stops..After....) in some way, and stated as a series of acts (vie....selected....decide....select....make clear....start ....make....come..). As the reader reads, these pictures may come to his mind:

1. Men pushing and arguing over baggage.
2. You select coolies (men) to carry your baggage.
3. You puzzle (Shall I take dandi, horse, or shall I walk?).
4. You decide on dandi.
5. You pick your men to carry the dandi, saying (a) This is my destination. (b) This is a fair price.
6. You get into the dandi and start up the hill.
7. The men put you down here.
8. The men put you down there.
9. Perhaps the men put you down again.
10. One hour after point 6 you arrive at Birla School.

Note that Point 3 is a three-branched diagram:

HOW SHALL I GO?

? ? ?
on foot by horse by dandi

But the overall design of the paragraph is a series of steps describing transportation from bus station to Birla. The reader is encouraged by the author to "live" the experience and to visualize it more clearly, by the author's use of "you". Two problems may block the reader: He has to infer that men and coolies are used synonymously. Also, if he doesn't know the meaning of the word dandi, visualization will be more difficult.

After reading this paragraph, the reader should be able to say what the problem is, what the steps are, in correct sequence, and whether and why he agrees with the author's opinion, "not so simple."

When the reader reads "Going from the bus station to Birla School is not so simple as one might think", he asks, "Why?" Then, when he sees, "First," he fixes in his mind that this is the first reason, but as he reads that sentence and starts the next("When"), he realizes that this is not only a first reason but a first step in a sequence. From that time on, he asks, "Then what?.....Then what? ....." and so on until the end of the steps. The active reader has sensed the author's purpose and design, and has set his mind with questions suitable to them.

To express cause and effect

> Some people who came to attend our course at Birla School thought that they would get fat from so much sitting in class. For this reason, they took long walks up and down the trails around the school. But whatever they lost in poundage on the walks, they gained afterwards. Each walk made them hungrier. They ate more and more. When last heard, they were criticizing the dhobi for shrinking their clothes.

The author is dealing with a series of causes and effects: sitting causing fear of obesity, fear of obesity causing walks, walks causing hunger, hunger causing more eating, (unexpressed: more eating causing gain in weight, gain in weight causing tightening of clothing), tightening of clothing causing criticism of dhobi. In the organization of his paragraph, he has done something like this:

What some people thought

what they did about it

what effect it had

why it had that effect

what they did because of what they thought had happened.

"For this reason" is a clue to the reader that the first sentence states a cause, and the next will state an effect, an effect of the people's thought.

"But", in the third sentence, signals a reversal, a change of expected direction. The people achieved just the opposite effect: obesity instead of slimness. This reversal is emphasized by the use of antonyms, "lost" and "gained".

The reader must know that "hungrier ate...more...more..." are causes for gain, for the author does not give a verbal clue to the fact that these are causes.

"When last heard" makes the reader know that the end of the story has arrived. It is the author's signal that the last of the causes of effects has come. The reader has to think what a dhobi's shrinking of clothes has to do with gaining weight. Then he laughs, for he is in on a secret with the author. He and the author know that the people gained weight, but the people still think they are winning the battle of the bulge. If clothes are tighter and weight is lighter, obviously the dhobi is the culprit.

This paragraph is much more complicated than many paragraphs of cause and effect, for often the author will deal with only one cause and one effect. He may start with the cause, which the reader recognizes as an act or situation or feeling (He struck the desk. (or) It was raining heavily. (or) Suddenly she felt dizzy.) Then he may or may not signal with an expression such as *therefore*, *as a result*, *consequently*. Sometimes he depends upon the reader's knowledge of such acts, situations, or feelings, to tell him that the next part of the paragraph is an effect or consequence (The letter opener rattled on the glass. (or) Streets were like lakes. (or) She put her hands to her head.)

In reverse manner, the author may start with the effect and then tell the cause:

> The letter opener rattled on the glass. He *had* struck the desk.

> Streets were like lakes. It *had* rained heavily.

> She put her hands to her head. She *had* suddenly felt dizzy.

Notice how the change in the verb tells the reader that the second, preceding the first, may be the cause of the first. That change, and the reader's own experience with cause and effect in life, are the only signals.

The reader should emerge from reading such a paragraph knowing the two events or situations or feelings, and knowing which caused which.

To compare or contrast

> The snow-capped peaks of the Himalayas appear to be much like other snowy peaks one has known. Their ridges loom white above the misty atmosphere, and the shadows between ridges form vertical grays among the horizontal lines of the stratus clouds.
>
> But in the case of other mountains, viewing is a matter of raising the eyes only slightly above the attendant foothills. The peaks we see from Nainital are shy of the observer, showing only on clear days and then only for a short time above the cloud bank. Furthermore, the one who looks for them, even from a vantage point of 7500 feet above sea level, must look halfway up the sky from the horizon. The unbelievable height of these peaks and the bank of haze beneath them, give the impression of a mirage, a supernatural phenomenon, whose image persists in the memory of the observer.

The author of these two paragraphs (which might have been written as one paragraph, with a turning point at the word "But") has had in mind something like this:

Himalayan peaks much like others (comparison)

ridges white above mists

shadows vertical gray

But (contrast)

Other mountains a little above foothills

Himalayan peaks

not always visible

high in relation to landscape

The author expects the reader to see the comparison (much like)in his first sentence, and to sense, without signal, that the two points (ridges...and shadows....) support the statement.

With "But", the author signals a difference, a reversal, and expects the reader to know that the reverse of comparison is contrast. He speaks then of other mountains, identifying this first point in his second paragraph as a feature of other mountains that is not true of the Himalayas. When he starts the next sentence ("The peaks we see from Nainital"), he expects the reader to know that the peaks seen from Nainital are Himalayan, and that whatever is said will be contrary to the statement about other mountains. If the Himalayan peaks are seen only on clear days and then only for a short time, and since this statement is made in contrast, the reader must assume that most mountains can be seen on most days, and, in many cases, of course, this is true.

The words unbelievable, impression, memory make the reader know that the author is giving a human reaction to the scene. The words mirage and supernatural phenomenon are comparatively used, since, as the reader knows, the Himalayas are neither a mirage nor a supernatural phenomenon.

The reader should learn from this presentation that the Himalayan peaks are like other peaks one has seen, having white ridges above mists, and vertical shadows, but that they are different in that they are rarely visible and so high and so separated by mists from the rest of the land as to seem unreal.

The fact that the author put his comparison first and his contrast second, along with an emotional punch in the words unbelievable and supernatural, suggests that he wants the reader to be impressed with the uniqueness of the Himalayas rather than with their resemblance to other peaks.

Notice the difference in effect of these two statements:

They look like other mountains, but they are higher.

They are higher but they look like other mountains.

The author's purpose, then, is to pay tribute to the uniqueness of the Himalayas, and to transmit some of his own wonder to the reader. He does these things by means of comparison and contrast. The reader must ask himself as he reads: "Does this tell how they are alike? How they are different?"

To enumerate (a..b..c..d..e..)

We have had to do a lot of work in this course. For one thing, there have been the lectures by Americans in English, when British English would have been hard enough. For another, there have been the lectures in Hindi; and, since there are many dialects of Hindi, these, too, have been a strain. The instructors have said in a short time too much that is important, so that note-taking has been difficult. Then there have been readings, projects, problems, and discussions. It is a wonder that we are still alive.

A paragraph of enumeration contains points whose order is of no particular consequence. In this way it differs from a paragraph of sequence, in which first one thing happens, then another, and not the reverse. The pattern of a paragraph of enumeration is the pattern of a grocery list. There may be logical groupings (all the dairy products together, for example), and an order among logical groupings, but there does not have to be. It is just easier for the reader if things normally associated are together.

The author's ideas in the paragraph above are ordered in some such way as this:

Main idea: We had to do a lot of work in this course.

Proof, job by job: listening to American English

listening to standard Hindi and dialectical variations

taking notes fast

reading

doing projects

solving problems

participating in discussions

Comment on the amount of work (humour of exaggeration).

The first sentence states an opinion. The word lot in this context signals this. "For one thing" signals the first point. "For another" signals the second. The fourth sentence ("The instructors....") is a statement of cause and effect, which can be recognized as a new point only because it has to do with time and note-taking rather than language. "Then" signals another point, which turns into a series of four, set off by commas.

The last sentence is again opinion, triggered in this context by the word wonder. Since the reader knows that few if any people die of listening, reading, studying, speaking and writing, he recognizes the statement as an exaggeration. Either the author is overwrought or he intends humour, to show that, for all the struggle, he isn't angry, disgusted, or outraged.

After the first sentence, the reader asks "Why"? After "For one thing", he wonders, "What else?"

A thought pattern of enumeration does not necessarily start with an expression of opinion. It may be a statement of fact ("There are seven danger signals of cancer"). Or it may start with enumeration and end with a statement or expression of opinion. Or it may start with enumeration and let the reader guess what all of these concern. Enumeration occurs when the author presents a list of items which have a common relevancy. How kind he is about signalling his purpose and his introduction of new points to the reader depends upon his writing skill and upon his awareness of the reading problem.

To define (descriptive)

> An Indian is a human being easy to identify. He will be light or dark, and have one of many of the world's facial types and body structures. In size he will range from tall and thin to short and thin, tall and fat to short and fat. He knows three or more languages and usually will be found speaking in the one you don't know. If a person of this description is in India, the chances are good that he is an Indian.

"An Indian is a" denotes here a definition. The word easy signals opinion, and the reader's reaction should be, "What makes you think so? Why?" The author goes systematically through points on the Indian's appearance, size, language, and location. The reader should be thinking: colour....facial types....body structures....size....languages....country, as he encounters these points. The reader's mind-set is: "How does he look? What does he do? Where will I find him?" - the kinds of question one would expect to be answered in a paragraph of this kind.

As the reader reads about the Indian's appearance, he may think, "Good heavens! He may look many ways." When he reads about his size, he thinks, "And any size." When he reads about language, he thinks, "And speaks in several languages." The one solace is that he will find an Indian in India (among other places). Then he realizes that the author has been teasing him. It is not easy: it is hard to identify an Indian.

To present a principle

> If you climb high into the mountains, your breath becomes short because of the effort of the climb and the thinness of the air. If you stay by the sea in a cool climate, you will feel brisk and strong, prone to walk quickly and think clearly. If you are by the sea in a warm climate, the moist, warm air may feel oppressive, so that you wish to move slowly and are not too eager to exert yourself. So, if you travel, you will find in your own reactions the proof that environment influences living things.

The author of this paragraph wants to make the point that environment influences living things, that we are to a certain extent creatures of our environment. Is a man lazy no matter where he is, or would an industrious man become "lazy" under the same circumstances? The author has used altitude, temperature, and humidity to make his point. He could as easily have used other factors, such as wages, housing, and fear. By putting the reader ("you") in three different situations, and by attributing three different reactions to him, the author proves his point.

The author could have as easily started with his principle and followed with his examples: "Environment influences living things. For example...." His purpose in starting with the examples might have been to engage the interest of the reader through the references to his own reactions, or to convince the reader of the differences in his own reactions, before presenting the principle. In the latter way, the author does not have a fight on his hands; the reader agrees with him already. It is a common technique among propagandists, who, by telling us just the right (or wrong) things, get us to draw an obvious conclusion with them, without a struggle.

Sometimes an author gives only one example. Sometimes he doesn't give an example at all, but merely elaborates or defends his idea by logic. Full of energy, he may present a principle in one paragraph, elaborate it in another, defend it in another, and give examples of it in another.

In the paragraph presented above, the reader must see that the first sentence states a situation, an effect, and a cause; that the second states a situation and a cause, followed by an effect; and in the third sentence a situation and a cause are followed by an effect. (All, by the way, start with a hypothetical "if" clause, suggesting a parallelism.) The "So" in the last sentence predicts a "what": If this, so what?

"Environment influences living things" has a special flavour which the reader must learn to recognize as the flavour of general truth or, at least, of generalization. Each one of those words is an abstraction for many specific instances. There are many kinds of environment, there are many actions that influence, and there are many kinds of living things. From the personal, specific "youness" of the earlier sentences, the author abruptly shifts to general terms. The "so" in this context signals a causal relationship between the first three instances and the statement at the end: because this is true, this is true and this is true, therefore this is true. Unless the reader can detect the difference between the wording of the general and the wording of the particular, and unless he can see the logical connection between the two ideas, he cannot be a successful reader of this kind of thought pattern.

The author's notes may have looked like this:

Environment influences living things.
Proof:

Altitude	Temperature	Humidity	Effect
(a) high(air thin)	---	---	Shortness of breath
(b) sea level	low	---	vigour
(c) sea level	high	high	inertia

The reader will have to be able to answer questions such as: What principle have you learned? What proof can you cite for it? The reader's notes, then, cannot be too different from the author's.

To illustrate (example)

An interesting example of this influence is the rhododendron. In Nainital at 7500 feet, with fog and abundant rainfall, this plant grows into a forty-foot tree, with bright red blossoms in its crown. In Berkeley at 500 feet above sea level, with less rain but much fog, it may grow to ten or fifteen feet as a many-branched bush. At an elevation of 4000 feet in the eastern mountains in the United States, where rainfall is plentiful but winters are cold, it grows to a height of four or five feet.

The author takes a separate paragraph here to illustrate the principle he presented in the preceding one. "*This* influence" refers, of course, to the influence of environment mentioned in the earlier paragraph. Again he uses parallel structure (In Nainital....in Berkeley....in the eastern mountains....) to signal the three illustrations he is giving. As in the preceding paragraph in which he took the reader into three different situations, he has taken one thing (the rhododendron) and described its condition in three situations. Altitude, rainfall, and temperature are the environmental conditions which are the variables here.

The author is working from a mental chart or has written down something like this:

Altitude	Rainfall	Temperature	Effect
Nainital 7500 ft	abundant (fog)	(widely varied)	40 ft. tree
Berkeley 500 ft.	light (much fog)	mild	10-15 ft. bush
E.Mts.U.S. 4000 ft	plentiful	varied	4-5 ft. bush

The reader, in turn, must either write down or fix clearly in his head the data on the variables in the three situations, and the variable outcomes. The author leaves to the reader the job of determining the potency of each variable.

The fact that this paragraph is illustrative is signalled in "An interesting example." A less considerate author would have presented the three variations without the introductory sentence, and let the reader infer that a type of plant growing in three different places is another illustration of the effect of environmental differences on living things.

A biology teacher would expect a student to do more thinking on these illustrations, to "read between the lines." What does an altitude of 7500 feet mean in potency of the sun's rays? How are plants in Nainital protected from the heat of the sun as well as the worst of the cold? (Much moisture = heavy snow protecting roots of plant; fog reduces heat of hot days and protects from the coldest air as well.) What, then, does this most favourable climate for rhododendrons provide that is less true of Berkeley or the eastern mountains?

The reader should not be intimidated by statistics. What part of Nainital is at 7500 feet? Not the town proper. What part of Berkeley is at 500 feet? In which eastern mountains are these figures true? Surely not in the Great Smoky Mountains, named for the vapours which shroud their peaks and preserve moisture for lush growth.

The reader may be annoyed by the use of "plentiful" and "abundant" without numerical interpretation. The dictionary indicates that "abundant" may be thought the greater. The reader refers to an atlas to find the rainfall in Nainital as compared with that of West Virginia. He feels that the author's loose terminology misrepresents the situation. His biology teacher is proud of such a die-hard.

To present evidence followed by interpretation.

(Phenomenon - reasons)

In Delhi when the sky is clear, the nights are starry; but in Nainital the sky is crowded with many more stars. The reasons for this difference may be the amount of electricity which competes with the night sky, the clarity of the atmosphere at different altitudes, and the collection of impurities in the air in a city as compared with that in a small town.

In Delhi when the sky is clear (this is not always, but must occur some of the time) the nights (it happens on several nights, apparently; this is a statement which is the result of several observations) are starry (it is a generalization in the form of cause and effect). But in Nainital (not Delhi - this is a second situation, and but suggests contrast) the sky (same old sky) is crowded with many more stars (more than what? must be more than in Delhi).

In the author's head may be something like this:

Statement of contrast: When atmosphere is clear

Place	Night sky
in Delhi	starry
in Nainital	many more stars

The reader wonders, "Why?" In response the author says, "The reasons for this difference (reasons signals the reader that causes for the effect are to be described; this refers to the previous sentence, and difference recognizes the existence of a contrast between the two kinds of night sky) may be (you see, he is not sure)....and then he continues to give three reasons, set off by commas and expressed in parallel form (the amount....the clarity....the collection....)

The author leaves a good deal of work for the reader, for he must think how much electricity is used in Delhi as compared with Nainital, how clear the atmosphere should be at 7500 feet as compared with 700 feet above sea level, and what the amounts and kinds of impurities might be in the Delhi atmosphere as compared with that of Nainital.

The evidence presented in this illustrative paragraph happens to be a contrast, but it could have been instead a comparison or mere statement of fact. It could have been a whole paragraph of description followed by another paragraph giving reasons for it, classifying it, or suggesting a procedure by which the reader could create a like phenomenon.

In the case of the paragraph given here, the reader must emerge with the idea that one can see more stars in the night sky in Nainital than in the night sky of Delhi because there are more competing light in Delhi, and more impurities in a city and at the lower altitude. However, the author cared much less about Delhi and Nainital star-gazing than he did about factors influencing the clarity of the earth's atmosphere. The reasons are the variables to which the student must give the great attention. The author might have used any number of examples.

So, when an author describes a phenomenon and follows it with an explanation, the reader must remember that the phenomenon is a means to an end. The teacher will hold him responsible for the reasons behind it.

To present a problem followed by a solution.

One day we had to show some slides in a room with many windows. We might have waited until evening, but then some people would have had difficulty going home in the dark. So we asked several people to bring blankets to cover the windows. One person brought a hammer and another some tacks to secure the blankets in position. We took three solid wooden screens and placed them like an open box before the audience. The audience was seated with its back to two solid wooden doors. In this way the sheet on the middle screen was sufficiently shaded to show the slides.

The author's material looks something like this:

Problem: to show slides in room with many windows

Alternative solutions: show by night - no
show by day - yes

Needed if shown by day

blankets
hammer
tacks
screens
sheets

Arrangement of these in relation to windows and audience.

In the paragraph the first sentence states the problem. The reader must know that slides require a bright light to be projected on a light surface that is in shadow, and that daylight in a room of many windows violates these requirements. "Might have" in the second sentence signals what wasn't done, and the "but" gives the objection. The reader's mental "So what?" is echoed in the "So" which begins the actual solution. The steps in the solution were:

We asked for blankets.
(Assumption: these were brought)
Two people brought a hammer and tacks.
(Assumption: blankets were tacked up over windows).
We set up the screens and seated the audience in positions
for maximum darkness on sheet. (Assumption: Sheet)

It remains for the reader to evaluate this solution. Was it reasonable, efficient? What would he have done instead?

In this chapter using English examples we have noted major types of treatment of which the brain of an English language speaker is capable, and have seen the results of these operations in paragraphs of expository English prose. Perhaps it is needless to say that each of these paragraphs could be condensed into a sentence or expanded into a much longer piece of composition. The important point for the reader to remember is that the unifying element in composition is the author's purpose, and that reading is efficient and effective to the extent that the reader is able to benefit by the signals which in given contexts indicate the thought patterns being used. Expository prose in another language needs similar analysis if readers of that language are to be helped to understand the thought patterns in that language.

BASES FOR EVALUATION OF A LANGUAGE TEXT AND RELATED MATERIALS

Validity

1. Is it a realistic expectation that children who have gone through the book and teaching materials as they were designed to be used will develop power in reading and a desire to read more?

2. Has research preceded or accompanied the development of the reading series to validate its content and methods?

3. Has the evaluation of this programme been based either upon actual tryout with pupils or upon the judgment of teachers as to their feasibility?

Content

4. Does the reader present characters with whom the child can identify?

5. Does it reflect Indian life, leading from the present which the child knows, to the past or remote?

6. Does it reflect the best in national and world literature?

7. Does the translation of world literature do justice to the quality of the original?

8. Does it reflect the ideals of the society without being unrealistic?

9. Is it interesting to children of the age group for which it is intended?

10. Does it inform as well as entertain, giving the child a greater self-knowledge, and a greater understanding and appreciation of his environment?

11. Do succeeding volumes reflect the expanding world of the growing child?

12. Is there clearly some attempt to correlate the readers with the content and goals of the other subject areas in the curriculum?

Language

13. Does the series utilize the basic vocabulary in the language, starting with the forms which children hear and use?

14. Does it present the common sentence structures, grammatical structures and word inflections, beginning with simple, common forms and proceeding to the complex? (Note: simple is used here in a general way, not in reference to simple sentence as compared with complex. There is such a thing as a simple, common complex sentence - simple because it is not an involved example, common because it is used often in the spoken language of children and adults who converse with them).

15. Does it use the punctuation required by the contents?

16. Does it present words containing letters easy to write, and proceed to more difficult forms?

17. Are new words presented gradually and repeated often enough to assist learning? (repeated not only in the same story but in later stories and later books)

18. Are words of multiple meanings presented one meaning at a time?

19. When one of two common words might have been appropriate in the text, has the choice clearly contributed either to repetition of something learned or to the development of a new learning?

20. Do sentences, paragraphs, stories increase in length and complexity throughout the books in the series, presenting more and more challenge to established skills?

21. Has some attempt been made to gear this increase to the language, interest and reading ability of the majority of children of the different levels concerned?

22. Is the language in the early books informal and natural without being undesirable?

23. Have the authors avoided introducing easily confused word forms in the same lesson? (General practice should be that one form be introduced; then, in a later lesson, another form; then, the two to be differentiated. However, this ideal is not always possible. In English, want and went, or there and then, are easily confused in appearance and also occur in the sentence in the same function and position).

Physical Aspect

24. Is the book suitably durable for the use it is to have?

25. Does its appearance invite the reader of the age for which it is intended?

26. Is the paper thick enough not to show print on reverse side?

27. Is the paper off-white and dull in finish; without glare?

28. Is the print black enough to make a clear contrast with the paper?

29. Is the print large enough for the ocular accommodation of children learning to read?

30. Is the type highly legible, so that letters are not confused with one another?

31. Is the print placed clear of the illustrations?

32. Is the page artistically balanced?

33. Can the child hold the book without covering the print?

34. Does the book open flat, so that the child is reading a flat surface?

35. Is the teacher's manual easy to use in relation to the child's book?

Illustrations

36. Are the illustrations an aesthetic experience for the child?

37. Do the illustrations assist the recognition of words?

38. Do the illustrations help the child determine the identity of the speaker whose words are in the text for that page?

39. Do the illustrations assist the text without completely "stealing" the verbal content?, (i.e. without making the words superfluous)

40. Are the illustrations expressive of mood as well as thought and action?

41. Do the illustrations attract the child by the use of colour?

42. Do the illustrations emphasise common elements in the culture?

Teaching Materials

43. Do the teaching materials provide for the assessment of readiness for new learnings?

44. Do they provide exercises for the development of readiness?

45. Do the teaching materials teach the care of the book and the use of the book (such as reading table of contents)?

46. Do they put the burden of active learning on the child, by such means as:

- asking for picture interpretation

- asking for generalization and induction (What part is the same)?

- asking comprehension questions which require thought rather than mere "finding the place that says it"

- having child retrace the steps in his own learning in a written record which he keeps

- using the alphabetical arrangement of words in a dictionary of words occurring in the reader.

47. Do the teaching materials establish quick recognition of a word at sight, as well as the recognition of letters in new words?

48. Are there cards and charts which provide practice in word, phrase, and sentence recognition outside the book itself so that sheer memorization of pages does not subvert the learning programme?

49. Do the teaching materials provide for the assessment of the child's needs and achievement?

50. Do they provide for silent as well as oral reading?

51. Do they provide for skimming exercise ("Find the place that tells---")?

52. Do they encourage children to think in many ways about the material they read (a) by setting a question before they read and (b) by setting additional questions and related activities after they read?

53. Are there suggestions for children who are slow to learn and children who learn rapidly?

54. Do writing, speaking and listening activities support the reading programme?

55. Are discussions and other activities suggested for emphasis upon incidental learnings in the content fields?

56. Are the learnings carefully built, one upon another?

57. Is the skills development programme of the class I materials as broadly conceived as that for the higher levels (a programme for growth in word form, word meaning, comprehension, interpretation, and study skills)?

58. Are skills taught, not just assumed and required?

59. Is the child given opportunities for self-evaluation?

60. Is the teacher encouraged to observe individual child behaviour as well as to test for growth?

61. Are the tests broadly conceived, not simply limited to letter pronunciation or word-calling?

62. Are directions to the pupil, which he is to read for himself, written in words he can understand, and do they express clearly?

63. Are directions to the teacher sufficiently simple, clear and detailed, even in some cases illustrated by pictures or diagrams, so that the novice can follow them?

64. Are additional teaching aids which are not provided, but are suggested or required in connection with activities in the learning programme, easily and cheaply available wherever the books are likely to be used?

THE TEXTBOOK AS AN INSTRUMENT OF CHANGE

Farmers know that they can't produce larger crops and crops of better quality simply by more ardent cultivation. Harder work is not the answer. The old seed will not take the heavy dose of fertilizer required for greater productivity. Nor will it yield a better quality of grain. New methods of cultivation are not worth learning if the old seed and the usual amounts of fertilizer are used. The need is for better seed as well as better methods of farming.

They know, also, that they can take better seed and produce a poor crop. This can be done by using the old, established methods. Unless farmers are taught new methods and are sufficiently convinced of their worth to use them all the good seed in the world cannot give a country the food it needs.

Educational improvements, like agricultural improvements, face the same problem. New textbooks, like new seed, can be distributed. Teachers, like farmers, can use the new textbooks with poor results unless they are taught the new methods to apply to the new textbooks and are convinced that these are a better way. So new textbooks, if they are to be instruments of change, cannot be distributed by a state without special introduction.

Furthermore, initial meetings with teacher groups in which the textbooks are explained and their use demonstrated will orient the teachers currently in the schools but not teachers who enter the school systems after that time. An introduction to the use of the textbook must be available when any teacher uses it. It would be convenient if the "each-one-teach-one" technique could be used, in which the experienced teacher could teach the novice in the profession. But this would be feasible only if the teaching technique were a matter of simple routine and simple memorization. Modern methods of language teaching are not so simple.

A many-pronged approach to the problem of teacher-orientation appears to be the only successful answer. Yes, teachers' meetings are good; demonstrations are good; discussions of teachers' experiences with the materials are good; and filmstrips and tape recordings and slides which can be used at any time - perhaps made on the occasions of these demonstrations and meetings - are good. These are necessary if the experienced teacher is to understand and to be motivated to adopt new methods.

But then the teacher goes into his classroom or into his tent or under his tree; and, alone with his pupils, tends to fall back on the familiar routines. This is not a sin. It is human nature. How can this tendency be overcome?

It cannot be overcome if the teacher doesn't really want to accept change. But if he does want to accept it, there is a way to help him. The way is a teacher's manual which explains the reasons behind the teaching techniques and then, lesson by lesson, gives directions for teaching. A good teacher's manual recognizes that a teacher's time for reading directions is limited. It is concisely written. It recognizes also that the teacher may not be acquainted with some of the terminology used. It uses a minimum of specialized terminology and explains the meaning by definition or specific illustration, verbal or pictorial.

The conciseness of a teacher's manual must be conciseness in detail rather than unhelpful generalization.

Unhelpful generalization: Have the children discuss the meaning of the passage they have read. Let them consider how it applies to their own experiences.

Conciseness in detail: Ask: "What happened to Amar?"....
"Why do you think it did"?...."Has anything like that happened to you?
"What?"...."Why did it happen"?....

Conciseness of detail makes it possible for the teacher to know exactly what to do but not necessarily why he should do it. For this reason many modern manuals use marginal comments to let the teacher know what the value is of the action proposed. There are many values in the example above: review, recall, use of the language of the book in rewording; but perhaps those might be taken for granted, since they occur in much that the teacher and pupils do together. Instead, the marginal notation might be: "Summarization, Cause, Comparison". This notation tells the teacher the types of thinking which would be missed if he omitted this part of the lesson.

The first lessons in a manual are necessarily longer than succeeding ones, for they must be given in greater detail. In later lessons a procedure may be referred to briefly: "Use same procedure as for_______ on page ______."

A teacher's manual may be a separate booklet to accompany the textbook or it may be bound in a teacher's edition of the textbook. In the case of books in English, some publishers reproduce the textbook page in miniature in the teacher's manual. Others make a page from the textbook a facing page for a page of the manual - interleaving the textbook and the manual. Some simply put the textbook and manual together in a single binding, one after the other.

A drawback to binding the two together is the sheer weight on the teacher's lap or in his hand. A manual of sufficient thoroughness to be helpful is usually longer than the textbook itself, despite the fact that its type size is 12 point (Hindi) for the adult reader. A drawback to having the manual in a separate binding is that it is easily mislaid or carried off, while the teacher is left with the textbook and no instructions in its use. Of the two alternatives, the binding of textbook and manual together seems the more desirable, particularly if the combination is not too bulky or heavy to be held.

No matter how clearly the textbook indicates the way it should be used, no matter how well the manual delineates the steps to be taken by the teacher, these are only marks on paper. Life must be breathed into them. Teacher training institutions must demonstrate and teach their use. The teacher can bring meaning to the print in the textbook and manual only if has been given some experiences which build that meaning.

Sometimes a set of textbooks and manuals is provided in the teacher training institution, and prospective teachers learn to teach the lessons under the guidance of the language methods instructor. Sometimes the publisher makes a pamphlet containing one story from the textbook and one lesson from the manual, and every prospective teacher can follow his copy as he watches a demonstration, and can use it in reenactment of the procedure with one or two other prospective teachers.

The textbook, then, can facilitate change under certain conditions: (1) It must contain within itself a design and a content favourable to the desired change. It should be hard to apply the old methods to the new design and content. It should be hard to overlook the features which constitute the change. (2) It must be accompanied by a manual whose detail is sufficient for the purpose and whose clarity and simplicity are suitable to the abilities and backgrounds of the teaching staff. (3) It must be introduced to the teaching staff in ways which will give meaning to the textbook and manual, and motivate teachers to use them properly. (4) Pictures and tape recordings of procedures used in orienting teachers should be preserved for use when later additions to the teaching staff are made. (5) Prospective teachers in teacher training institutions should be taught to use the new materials and methods, and be inspired with the importance of continuing these practices in their future teaching assignments.

APPENDIX

FORM FOR REVIEW OF CHILDREN"S BOOKS

I. Source

Author...

Title..

Publisher..

Date of publication................................

Name of selection..................................

Page number..

Where available....................................

II. Language...

III. Approximate Number of Words.......................

IV. Type of Selection

Prose............(a) Story.........(b) Other......

Poem...

Play...

V. Nature of Content

Humourous..

Fanciful...

Realistic..

True...

VI. Time of Content

Present..

Past...

VII. Location of Content

Country..

State or Region....................................

INDEX

A

absorption 72, 77
acknowledgements 15, 69
artist 1, 8, 19
attitudes 8-9
auditory discrimination 6, 22, 41-8
authors 8, 10, 15-8, 59, 76

B

Book I 20, 69, 72, 79
Book II 71, 73, 78, 79-81
Books III-V 29, 73, 81-4

C

cards 10, 12, 50, 61, 66, 74, 117
chapters 6
characters 14, 18, 76, 85, 91-2
charts 10, 12, 61, 74, 117
classics 3, 14, 15, 78, 79, 81, 84
comprehension and interpretation 7, 8, 19-20, 55, 57, 72, 92, 98-114, 117-8
concepts 4-6, 22, 24-8
conditions for successful learning 3
consonant sounds 44-7
content of readers 1, 8-12, 14, 75-84, 116
context 5, 11, 59, 65-6, 74, 98-114
copyright 15

D

dialects 4
dictionary 66
difficulty of reading materials 9-12, 15, 59, 76, 98-114, 116, 118

E

evaluation by experts, of reading materials 1, 18
criteria for 115-8
evaluation of children's progress 13, 118 (See tests)
exercises in book 10, 15, 19-20, 65, 68, 72, 117
experiences, children's 1, 23-5, 78-84

F

flannel board 10

G

games 10, 66
glossary 1, 69, 73
grammar 5, 18, 20, 58, 66, 115

H

habits 2, 11
humour 10, 76, 80, 82-4

I

illustrations 13, 14-6, 18-9, 60, 64, 70, 74, 117
individual differences 4, 9, 10, 59-61, 118
interests 9, 14, 16, 59, 65, 116
interview 4, 93

L

language 6, 10, 17-18, 22, 40, 62-4, 66, 82, 115-6
learning language 11, 56-7
learning letter sounds 11, 18-22, 48-51, 56, 60-1
learning letter form 22, 64-6
learning by induction 18-9, 57
learning by substitution 54
learning by imitation 49-51, 56
learning sentence meaning 53-6, 98-114
learning word meaning 19-20, 72, 94-7
learning words 3-4, 11, 18-21, 52-3, 59-60, 62-4, 117-8
learning word analysis 18-19, 63-5, 72-3, 74
literary forms 3, 76
    biography 83
    drama 81
    expository prose 98-114
    poetry 11, 63
    stories 78-84
literature, children's 9-12, 122

M

manual for teacher 10, 20, 116, 119-21
meaning 11, 19-22
methods of teaching 1, 11-2, 18, 48-59, 65, 74, 119

O

observation of children's behaviour 13
oral reading 30, 56, 62
organization of book 9, 15, 18

P

paragraphs 6, 36, 98-114
parts of speech 6, 14, 20, 25, 63
phonetics 6, 41, 59-60
physical aspects of book 12, 68-73, 116 (See also illustrations.)
    binding 15, 116, 120
    ink 116
    length of line 12, 15-6, 68, 70
    no. of different words per book 68, 70
    no. of lines per page 15, 68, 70

        no. of new words per book 15, 58, 68, 70
        no. of new words per page 15, 58, 68, 71
        no. of pages of exercise per book 15
        no. of pages per book 15, 58, 62, 68-9
        no. of pages per story 15, 68-9, 72
        no. of stories per unit 69, 72
        no. of stories per book 15, 68, 72
        no. of units per book 9, 69, 72
        no. of words per book 68-79
        no. of words per line 68, 70
        no. of words per page 68, 70
        no. of words per story 68, 70
        paper 12, 19, 116
        price 15
        size of page 15
        spacing 12
        type size and style 11-2, 14, 19, 61, 68, 70, 116, 120
plot 14, 22, 76, 85, 88-91
poetry (See literary forms)
Primer 14-5, 16, 69, 72, 78
publisher 19
punctuation 6, 115
purposes for reading 30, 65, 118

Q

questions to ask on content 7, 18, 22, 65

R

readiness to read 17, 20, 22, 117
repetition of new words 5, 20, 60-2, 65, 68, 71-2, 115-6
research 4-5, 12-3, 17, 22-40, 122
records kept in developing textbooks 14-6, 20, 32

S

science concepts 4, 9, 75, 81-2, 84
self-instruction 10-1, 74
sentence types 6, 16-8, 20, 22, 25-6, 34-6, 65, 115-6
setting of story 22, 65, 76, 85, 88, 92
silent reading 11
skills 11, 19, 118
skimming 60, 118
social concepts 2, 4, 9, 14, 18-9, 75, 81, 83, 92
sounds 6, 41-8, 65
specialists consulted (See evaluation.)
speech 40, 50, 53
spelling 49
story 14-6 20-1, 59, 74, 88
    values in 3
    writing 10-1, 14-7, 61, 65-6, 85-93
structure of words 11-2, 18-9
style 76, 92, 115
supplementary reading 10, 30, 61, 66-7

T

table of contents 15, 69, 73
teacher education 119-21
tests 4, 10, 12-3, 15, 19, 22-8, 36-40, 41-8, 69, 72, 118
textbooks in content fields 31, 98-114
thought processes 2, 6-8, 19, 22, 25-6, 98-114
traditional methods and materials 5
translation of stories from other language 10
type (See physical aspects.)

U

units 9-10, 15, 21, 69, 76, 78-84

V

validity of materials 115
values
    in life 1-3, 8-10, 58, 75, 86
    of reading 7-9
visual discrimination 20
vocabulary 4, 6, 15, 29
    control 3, 10-1, 15-8, 20, 58-67, 118
    hearing 23
    list 10, 20
    spoken, children's 3-4, 6, 16-8, 20-9, 54, 63, 115
    standard 4, 63
    technical 29
    writing 30, 55-6, 65-6, 74, 117
vowel sounds 44-7

W

wastage 4, 41
words 10, 32-3
    choice 5-6, 14-9
    dimensions of meaning of 5, 24-5, 66, 94-7
    multiple meanings 5, 32, 64-6
workbook 10, 20, 65-6, 117
writing difficulty of letters 5-6, 50-2, 115